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ABSTRACT

A project was conducted to investigate the current status of secondary-postsecondary articulation of cooperative work experience programs, to identify impediments to the process, and to formulate recommendations for its enhancement. Sixteen New Jersey community colleges having a cooperative education program were included in the study. The chief administrator and the cooperative education operating administrator at each institution were asked to respond to a questionnaire which asked for two types of information: (1) actual activity in their cooperative education program which collaborated with a complementary system in their county, and (2) their attitudes and opinions toward general concepts and specific changes concerning articulative activity. A jury of ten professionals in appropriate related fields reviewed all aspects of this project. A follow-up letter, telephone call, and campus visit occurred at two-week intervals. After data on the returned questionnaire were analyzed, it was concluded that a working state plan for vocational education articulation between secondary and postsecondary institutions does not exist in New Jersey. (Responses on individual facets of the questionnaire are reported in detail, along with data tables. The survey instrument itself is appended, along with a bibliography.) (CT)

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ED169244

MAR 07 1979

FINAL REPORT

of

VOCATIONAL EDUCATION
THROUGH
COOPERATIVE WORK EXPERIENCE

OCEAN COUNTY COLLEGE
TOMS RIVER, NEW JERSEY 08753
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U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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This project reported herein was conducted pursuant to a contract from the New Jersey Department of Education, Division of Vocational Education. It was funded under Section 131 of Public Law 94-482.

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ABSTRACT

PROJECT TITLE VOCATIONAL EDUCATION THROUGH COOPERATIVE WORK EXPERIENCE

LEGAL NAME OF DISTRICT OR INSTITUTION OCEAN COUNTY COLLEGE

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FUNDED UNDER SECTION 131 OF P. L. 94-482 PROJECT BUDGET $ 8,360

DESCRIPTION OF PROJECT

Use this sheet and no more than one other to type in single-spaced form a statement of project objectives, procedures that were followed, state and local priorities emphasized and the contribution of the project to vocational education.

The major objective of this research project is to be the identification and development of new careers and occupations, in the areas listed as having priority, with an emphasis on the delineation of such career programs with potential for advancement from one level to another. Particular attention will be given to career ladder articulation between the secondary and post-secondary LEAs within service areas. The pursuance of this goal through Cooperative Work Experience channels will address a number of other objectives that the Division of Vocational Education has identified as having priority:

a. Identify methods to establish and enhance cooperative arrangements between public education and manpower agencies to correlate vocational education opportunities.

b. Identify programs designed to broaden occupational aspirations and opportunities.

c. Facilitate the participation of employers and labor organizations in vocational education through increased involvement in Cooperative Work Experience.

d. Develop materials to implement in-service faculty development.

e. Develop materials to promote interagency training between vocational high schools, colleges, governmental agencies, business, and industry.

f. As an overall concern, identify methods to reduce sex bias and sex role stereotyping in vocational education.

CHAPTER ONE

INTRODUCTION

The purpose of this project is to investigate the current status of secondary- post secondary articulation of cooperative work experience programs, to identify impediments to this process, and to formulate recommendations for its enhancement. The project will be conducted in a manner that will maximize application potential in the state of New Jersey. It is expected that the results of this project will be used within the state to develop action plans.

The theoretical construct of this project will be in accordance with the structural-functional school of social science. Major proponents of this methodology are A. R. Radcliffe-Brown in Anthropology and R. K. Merton in Sociology. Malinowski, Kluckhohn, Southerland and many others have also made significant contributions. This approach studies social phenomena from two standpoints: the impact of "functions" on social structures, and the correlation among those "functions."

The word "function" has many meanings in general usage. Its operational meaning in this context is Merton's fifth definition as stated by Timasheff, "those observed consequences which make for the adaptation and adjustment of a given system." (1) In the biological sense functions are

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"vital or organic processes considered in the respects in which they contribute to the maintenance of the organism."(2) In the most simplistic terms, functions are the motivations for the accomplishments of a given social structure. They are what the structure does. Functions are motivations for establishing social strucutures. Structures are created in the minds of men and enacted to serve these functions.

An example of this could be found in a society in which "sin" was very pervasive. Citizens recognize the need for the abatement of sin (a function to be accomplished). To this end, the citizens establish a structure (a police force). In this case, and as is so often the case, "sin" is not defined. The sociological processes will unfold without a definition. Indeed, it is not essential for sin to even exist. It is sufficient that it exists in the minds of the people to a degree that causes cognitive dissonance.

Malinowski, in his classic "Anthropology," says this theoretical approach aims at the explanation of facts "at all levels of development by their function, by the part which they play within the integral system of culture, by

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(1) Nicholas S. Timasheff, Sociological Theory Its Nature and Growth (New York: Random House, Inc. 1967) p. 223

(2)Robert K. Merton, Social Theory and Social Structure (New York: The Free Press, 1968) p. 75

the manner in which they are related to each other within the system." One of the major tasks of an investigator using functional analysis is to discover the types and number of cultural response possibilities under diverse social conditions. Marion Levy's "The Structure of Society"(3) is an excellent example of investigating these possibilities. In an investigation based on structural functional analysis, a good approach to the study is to devise a detailed outline of the structure of the phenomena; in this case the secondary and post secondary vocational education system in the state of New Jersey. We assume, a priori, that a structural unit will not exist unless functions (either manifest or latent) exist which are addressed by this structure. Over time, the structure will remain static or change depending on the perceived capacity of the structure to continue to address what happen to be, in current assessment, manifest functions significant enough to demand organizational attention.

In the context of this project, special consideration will be given to the application of one of Merton's major contributions to functionalism, his distinction between manifest and latent functions.(4) "Manifest functions refer to the objective consequences of a specific social or cultural unit which contribute to its adoption or adjustment and were so intended by the participants; latent functions refer to unintentional and unrecognized consequences."(5) The most valuable use of this concept in the project will be in the identification of functions that appear to be latent but may, in actuality, be manifest. This distinction is not easily discernible and attention to the dichotomy may be a key to the enhancement of articulation. That this task can be accomplished is promised in Merton's "Postulate of Indispensability" wherein he reiterates Malinowski, "in every type of civilization, every custom, material object, idea and belief fulfills some vital function, has some task to accomplish, represents an indespensible part within a working whole."(6) Identification of the "real" manifest functions, even though they are latent in the minds of the operants, will facilitate change. If we attempt change in a system based on erroneous interpretations of functions, we are likely to fail. The desired change may well be highly functional to an end goal, but we have based its application on a false premise.

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(3)Marion Levy, Jr. The Structure of Society (Princeton: Princeton University Press, 1952) Chapter 2.

(4)Merton, Chapter 3

As an example, we can return to the case used to explain structure and function, the police force. As was noted, the abatement of sin was the reason for establishing the police force. This was the "manifest" function. In developing the concept of a police force, some of the citizens note that it will also serve subsidiary functions such as maintaining order. We now have a latent function: peacekeeping. In the minds of some citizens, particularly the leadership, keeping the peace means preserving the status quo; which in turn means keeping current leadership in power.

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(5)Timasheff, p.225

At some point in the history of this society the citizenry may see a need to overturn the power structure. At that time the leadership of the police force may emphasize its latent function and establish martial law. The latent function predominates and becomes the manifest function. What was originally the manifest function becomes secondary, or latent.

Of course these concepts become much more complex in existential application. Every social structure has an array of both manifest and latent functions. There are also many overlaping and often competing structures that confound the social investigator. This example simply demonstrates that, when attempting to investigate a social structure, it is necessary to identify functions and to establish which are manifest and which are latent. This gives the investigator a base for understanding and upon which to plan for change.

Material for the project will be drawn from three broad areas of education; Cooperative Education, Vocational Education, and Educational Articulation. An extensive

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(6)Merton, p. 86

bibliography has been assembled addressing each of these areas individually and in a myriad of cross applications. An exhaustive search of published and unpublished sources has not identified a precedent for the model described in this proposal. That is, no material was found that addressed the potential of cooperative education as a vehicle for articulating vocational education between area vocational technical institutes and community colleges. The logic for this approach is expressed in Merton's theory of the middle range.(7) In this case, Vocational Education, Articulation, and Cooperative Education are all grand theories that are being approached through the development of a "middle range" theory of cooperative education articulation, at a manageable level, with minimum abstraction. This theory will be discussed in a later chapter. For immediate purposes, this concept can be simplified in the context of the previously used example concerning a hypothetical police force.

One of the major areas of interest to social scientists is social control. This is a complex area and difficult to comprehend or experiment with in its entirety. In this case we could say that social control is a grand theory. Merton would suggest that we can examine this grand theory best by approaching smaller units of it. The police force is one of the structures of, and provides functions supportive to, social control. The police force is therefore a "middle range" approach to social control. Knowledge concerning the police force, added to knowledge of other "middle range" institutional structures involved expands understanding of the complex phenomenon: social control.

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(7)Ibid., p. 39

Vocational Education

In recent publications there has been consternation expressed by liberal arts educators about "rampant vocationalism." Regardless of one's philosophy on the issue, this is evidence that the rapid expansion of vocational education is of primary interest to all educators. Nationally, about 50 percent of all community college students are in vocational programs. The National Center for Educational Statistics projects that in the next decade community college enrollments will increase by 48 percent while the increase at four year colleges will only be about 4 percent. Vocational Education cannot help but grow under these conditions.

As community colleges have grown, there has been a concurrent increase in secondary vocational education facilities. The woodworking and metal shop classes in the high schools have become independent Area Vocational-Technical Institutions with extensive Institutes with extensive programs and laboratories containing the most sophisticated technological equipment. Since 1947, Vocational Education has increased sixfold. Between 1965 and 1974, $18.3 billion were spent on vocational education. The Vocational Education Amendments of 1968, The Higher Education Act of 1972, and its amendments of 1976 all authorized increases.

During the past year we have seen dramatic effects resulting from the implementation of the Comprehensive Employment and Training Act. Although it is too soon to assess the value of CETA for vocational education, there is no question that its impact will be significant and that it will increase the attention given to this field.

Cooperative Education

Cooperative Education is another complex area of education that has experienced phenomenal growth in recent years. Originally conceived as a field experience program for engineering students, it grew rather slowly through the first half of the century. In more recent years cooperative education has expanded rapidly. The Cooperative Education Association reports that in 1978 there are over 696 programs enrolling a total of 156,000 students at the college level.(8) Much of the recent growth must be attributed to funding under Title IV-D (now Title VIII) of the Higher Education Act of 1965, as amended. Some attrition can be expected when this funding source is no longer available.

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(8)Cooperative Education Association, Cooperative Education '78, (Philadelphia: Drexel University, 1977).p.24

Typically, secondary school programs tend to be defined less rigorously than post secondary programs and have other titles such as "work study" applied. This, along with diverse funding sources, makes it difficult to establish closure on secondary cooperative education and can largely be attributed to two factors: 1. Secondary programs are often locally defined and regulated, although some regulation at the state level may exist. Post secondary programs have been strongly influenced by federal funding guidelines. 2. Cooperative education serves two broad purposes that are not always mutually supportive; experiential education and income production. Secondary programs often emphasize the second purpose while post secondary programs are more likely to emphasize the first.

We do know that there has been extensive growth in secondary cooperative education in New Jersey over the past ten years. Since 1965 these programs have increased by 468%. In 1975 there were 789 secondary cooperative education programs consisting of distributive education, cooperative industrial education, and cooperative office occupations. Student enrollment totaled 3,394. As the benefits of cooperative edcuation are demonstrated in the traditional secondary areas, new programs are developed in other areas. Home

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(These figures are actual responses to a national survey. J. Wilson of the Cooperative Education Research Center estimates there are 1,054 programs with 200-210,000 students enrolled) economics, cooperative agriculture education, and cooperative health occupations are other types of cooperative education that show much promise in the State. There is also a growing interest in work experience career exploration since the first ten pilot programs were established in 1970. As previously stated, it is difficult to establish the exact status of secondary programs. We do know that cooperative education past the secondary level is growing in all disciplines and in all locations.

There are, of course, a number of other factors that will be explored during the course of the project. At the national level, post secondary cooperative education looks to the Cooperative Education Association for leadership. Secondary programs seek guidance more from the Vocational Education Association, particularly from its Distributive Education component. In considering the source of divergent cooperative education patterns between secondary and post secondary institutions, we must also consider the general factors intrinsic to these institutions.

Articulation

In their ability to create and share jargon, only educators have excelled politicians. We seem to have a particular affinity for platitudinous buzz words alluding to consensual harmony. Among educational levels, units, and disciplines, we are never satisfied with talking to each other. Instead we develop elaborate structures to "communicate", "interface", and now, "articulate." Through many years of "forums", "symposia", and their like, we have managed to avoid the real challenge of actually talking about our problems. The instrumental value becomes a terminal value through the misplacement of goals.(9) Occasional glimmers of light are seen at regional and national conferences. At the local level where something can actually be done, we revert to evasive tactics and hide behind our buzz words; secure in the "pseudo-effectiveness of unrecognized disorder."(3) It will be a goal of this project to break through this morass of verbiage by addressing specific questions to administrators at the operational level. Their responses will be paired with the responses of their counterparts at the chief administrator level within each county.

Articulation, for the purposes of this project, is the activity of educators at the local level to "discover, establish and continually improve relationships between policies, plans, procedures, programs and people."(4) The definition, as stated by Porter and widely accepted, uses the word "effort" in place of the word "activity" used here. The problem is that unlike activity, effort cannot always be objectively measured in either quality or quantity.

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(9)Peter M. Blau, The Dynamics of Bureaucracy, (Chicago: University of Chicago Press, 1972) p.232-237 (This is a simplification of the "Ritualism" concept in Merton's "Modes of Individual Adaptation.")

(3)Chris Argyris, Integrating the Individual and the Organization, (New York: John Wiley and Sons, 1964) p. 298-315

(4)John W. Porter, Planning for Continuous Occupational Education Programs Between Secondary and Post Secondary Education. (Michigan: Michigan Department of Education, 1975.) p.2

There is an additional problem with this definition that will be addressed during the course of the project. No doubt many workshops on articulation have concluded with a unanimous agreement that this definition is adequate and that all will work to implement it. Then each member of the group returns to his workplace with quite different opinions as to what "improving" these various relationships really entails. The definition is of little use without a stated criterion against which improvement can be measured. (If no criterion is specified, one could assume, _reductio ad absurdum_, that the end result is unity.) Few administrators believe that unifying these two levels of education (secondary and post secondary) would provide the versatility required to respond to the totality of needs existing in the field of vocational education.

Articulation Criteria

It has been established that the definition of articulation, "the activity of educators at the local level to discover, establish, and continually improve relationships between policies, plans, procedures, programs and people," must have operational specifics attached if we are to investigate its status.

Both the American Association of Community and Junior Colleges and the American Vocational Association have been concerned with articulation for many years. Their mutual interest led to a joint AACJC/AVA study which began in December, 1976. The initial effort was to identify policies and practices that facilitate cooperation between educational units. A national advisory committee was convened to identify a set of principles it considered to be conducive to achieving this goal. This list will serve as the criterion for articulation in this project. It may be necessary to modify this to serve as an "ideal type" model for New Jersey. Project survey instruments will test the validity of this list for New Jersey application:

1. The existence of formal or informal agreements between two or more local institutions stating how such insitutions should collaborate in their efforts to provide support for post-secondary vocational education.

2. The use of criterion referenced tests or other systematic assessment procedures making it possible to offer course credit to students and adults who have already acquired specific knowledge and skills in a given vocation.

3. Closely related to giving credit for already acquired knowledge and skills is the willingness of local institutions to accept the transfer of credits from another institution.

4. The use of follow-up surveys to ascertain how well students in those occupations for which they have been trained are doing.

5. The existence of joint planning committees and joint membership in advisory

committees.

6. The provision of individual study opportunities and flexibly scheduled courses giving students access to programs when convenient for them.

7. The joint sponsorship of community need surveys.

8. Established procedures whereby key staff are provided release time to participate in joint planning sessions.

9. Shared counseling and job placement programs.

10. Budget and program planning procedures giving key administrators the opportunity to review each other's budget requests. (This is particularly important when units must share a common funding service with a fixed total budget.)

This list does not totally exhaust all possible activity that could be considered directed at articulation. It is being used in this project for two reasons: 1. It has face validity and is sufficiently inclusive while maintaining manageable length. 2. These criteria were used by the AACJC/AVA National Committee in a survey covering twenty-two communities in a like number of states. The results of this national survey are not yet available so this validation is partially *a priori*. Using this list does, however, maintain internal validity for future comparison of the results of both investigations. (This provides an additional linkage of middle range theory as discussed in later units of this proposal.)

CHAPTER TWO

EXISTING PROBLEMS

General Problems

As previously noted in this proposal, both vocational education and its corollary, cooperative education, are expanding rapidly. There are problem areas in each. These problems fall into two broad categories, funding and service delivery. Funding problems are the most critical. At the federal level (the source of almost all new or greatly expanded programs) budget requests for both vocational and cooperative education seem to have reached a plateau. Without strong Congressional support it is likely that funding for both will be drastically reduced. Concurrently, the federal government is appropriating vast sums for CETA training programs that not only compete with education but infringe on traditional education prerogatives. The impact of CETA is not central to this project but it is so pervasive that it cannot be ignored.

At the local level, vocational and cooperative education programs must compete for shrinking dollars that are available for all education. In New Jersey, the state has imposed budget caps that not only restrict growth but often demand retrenchment. when one considers the national needs for greatly increased vocational education it could be assumed that this financial crunch is temporary and conditions will improve when its negative impact is realized. In any case, this may take several years. For the present, vocational education is under financial siege at a time when the service it provides is in greatest demand.

When coupled with financial exigency, inefficiency in program delivery becomes a burden we can no longer afford to carry. Over the preceding two years the AACJC/AVA Joint National Committee has been investigating general problems of vocational education. Four categories of problems were identified and the groupings revised at the national meeting in February, 1978. It was the general consensus of the hundreds of participants representing vocational education throughout the United States that the following problems exist in most locations and that each problem can be addressed through the articulation process:

1. An increasing concern with the improvement of program quality. Earlier efforts directed toward simply responding to the demand for new programs are now being turned to exploring ways in which better program quality can be achieved.

2. Shrinking enrollments at the secondary school level. High schools (and their closely related adult schools) are aggressively marketing their programs to adults to replace lost revenues. Conversely, colleges are developing in areas formerly restricted to secondary schools.

3. Increasing costs. The current demand for accountability and improved efficiency reflects the public's (and their political representative's) concern that educators are feathering their own nests at the expense of the taxpayer.

4. Competency-based instruction. Paralleling the concern with rising cost is the growing recognition that there ought to be better ways of assessing a student's competency, thereby shortening the time required to reach a prescribed level of performance.

Impediments to Articulation

Articulation is certainly not a panacea for all that ails vocational and cooperative education. Minimally, it will serve to partially ameliorate a number of the general problems. Potentially, it can achieve much more. As the articulation process advances "the attainment of organizational objectives generates a strain toward finding new objectives."(1) This accelerator effect can lead to serendipidous benefits surpassing the articulation goals specified in this proposal.

Why then are articulation plans not being implemented to any great degree? There are costs involved, but these costs are minimal and certainly much lower than the benefits that have been ascribed to fully operational programs. David Bushnell has identified five groupings of barriers that impede successful articulation: external forces, stereotyped perceptions, competition, poor communication, and certification problems.(2) Other available material shows no impediments to articulation that do not fit into this taxonomy. Each group is discussed below.

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(1)Peter M. Blau, The Dynamics of Bureaucracy, (Chicago: University of Chicago Press, 1963) p. 243.

Of the external agencies influencing vocational education, none is as pervasive as the federal government. The interlocking structures of state and federal bureaucracies provide the financial life-blood of vocational education. The controls that accompany this funding often forbid at one level of instruction what is mandated for another. These mutually exclusive requirements even prevent educational units at the same level from maximizing their potential. The existence of these schools is of great value but the cost of their continued maintenance in addition to the pre-existing high school systems can lead to reduced efficiency of each.(3) Another obvious conflict is currently facing New Jersey secondary administrators. The state has issued the dual mandates of "T and E"(4) and Budget Caps.(5)

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(2) David S. Bushnell, "Confusion on the Bridge: Articulating Vocational Education at the Post-Secondary Level." AACJC/AVA Joint Study presented at Boston Regional Conference on Education for Work, (December 14& 15, 1978).

(3) Carl J. Schaefer and Jacob J. Kaufman, *Occupational Education for Massachusetts*, A report prepared for the Massachusetts Advisory Council on Education, (June 1968). p.15

(4)T&E. New Jersey Public Law 212 of 1975. This law notes that the state constitution requires a "Thorough and Efficient" education system. The law spells out standards and processes to meet this constitutional requirement. Compliance must be attained according to a timetable, and takes budgetary priority.

Many other agencies restrict education in general and particularly vocational education. The conflicting demands of organized labor and industry, professional organizations, accreditation bodies, and a myriad of special interest groups all make articulation a difficult process.

Educators often complain that the public has strange ideas about what they do, and does not understand the educators' problems. Less often do we consider that we share the same prejudices ourselves on an inter-institutional basis. We hold stereotyped and often erroneous opinions about what our counterparts do and think. At the same time we are very protective of our own situations and build complex rationalizations for our beliefs and activities. It is difficult to collaborate when we know nothing about each other; even more so when we must overcome animosities bred by faulty perceptions.

With growing interest in continuing education occuring at the same time that the number of younger students is declining, institutions within a given geographical area find that they are competitors. AVTI's are filling their buildings in the evenings with adult programs that are post secondary. Community colleges compensate for low general enrollments by developing adult literacy and basic skill

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(5)When the New Jersey State Legislature enacted the income tax (1975) to support education, an ammendment was attached placing a "Cap" on school budgets. The Cap formula makes it difficult to implement "T & E" without retrenching in other areas.

courses that, in better times, were left to the secondary adult schools. Both levels prefer to concentrate on the areas with the most favorable cost-benefit ratio. The sometimes fierce competition absorbs time and effort that should go to articulation efforts that would benefit both institutions.

Faulty or nonexistant communications are cited as causative factors for problems in every field. These are not only problems in themselves but exacerbate all of the other impediments to articulation.

Certification requirements, for both faculty and programs, are a final area to be considered. Teachers in AVTI's and community colleges often have quite different job entry requirements and advancement criteria. This invites invidious comparisons and hardly breeds the spirit of cooperation that is needed for articulating their respective programs, which have equally disparate pedagogical bases. The difference between a certificate and a diploma may be insignificant to the public. To educators with vested interests, the differences can seem irreconcilable. Gartner(6) notes disparity and discrimination in credentialing as a prime problem in vocational education. Similar views are expressed by both Shimberg and Kasper in

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(6)Morris T. Keeton and Associates, Experiential Learning:Rationale, and Assessment, (San Francisco: Jossey-Bass Publishers, 1976) p. 34-40.

Vermilye's *Relating Work and Education*(7)

One of the basic differences between education and other professions is that other professionals are actively involved in the establishment of the regulations by which they themselves are governed. To a great extent, they mutually self select their peers. Educators, on the other hand, allow state agencies to make these decisions. The effects of these agencies are greatest at the secondary level. All fifty states require certification of both teachers and administrators at this level. Generally, postsecondary personnel are not required to have state certification. There are, of course, institutional requirements that may be more stringent than would nominally be specified by a state agency. The point is that there are no universal standards to apply as state or national criteria for professional credentials. Vocational educators do not even enjoy the interstate reciprocity that is common in other professions.

A basic problem in establishing universal certification is that in addition to the American Vocational Association, "The National Education Association and the American Federation of Teachers and their local affiliates have an intense and abiding interest in the certification of vocational education personnel." (8) So many strong advocates should ensure the passage of legislation (and probably would) if they approached the governing bodies with a single proposal. To this date they have not done so. No progress is possible until these organizations have settled their differences.

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(7) Dyckman W. Vermilye, ed., *Relating Work and Education*, (San Francisco: Jossey-Bass Publishers, 1977) p. 154-171.

In addition to this quandary, Vocational education shares another commonality with cooperative education. As perceived "innovations" to education, they are troubled with status validation. From both internal and external sources, they are subject to criticism that is not applied to education in general. Miller and Roehrich note that:

> Officials in state departments of education who have some responsibility for employment or certification of new vocational teachers express concern about the teacher education process. What troubles them is that the completion of a traditional baccalaureate degree program in vocational teacher education does not necessarily ensure teaching competence, which initial certification implies.(9)

The validity of this statement is unquestioned. It would be just as valid if the word "vocational" were removed. A method to ensure teaching competence has long been sought by educators. Not having such a method has not impeded certification in other fields. Such status incongruities become manifest only when applied in anticipation to claims of legitimacy by previously excluded groups.

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(8) Aaron J. Miller and Robert Roehrich, "Who Controls Certification of Voc. Ed. Personnel?," American Vocational Journal 53 (April, 1978): 24.

(9) Ibid., p. 26

None of these problems, individually or collectively, can prevent full scale articulation. They are simply obstacles that must be overcome through joint efforts of institutions that are notoriously slow in responding even to their own internal needs. If articulation is going to progress with any expediency, it is likely that some prodding must take place. The most likely candidate for this task is the nemesis that itself creates much of the problem, the state bureaucracy. This project is itself the first step in that direction. The "Hawthorne Effect" of a state wide survey will prompt some additional attempts at articulation. It would be naive to assume that more direct action will not be needed to overcome bureaucratic inertia.

Our education system is one of the dominant social institutions of our society. Collectively, its individual units form a monolithic bureaucracy approaching the Weberian ideal type. Inertia is one of the major descriptors of bureaucracy. This trait serves a very positive function in that it provides stability; a basic human need and therefore necessary in any human activity. The question is to what degree is stability functional to the given bureaucracy.

Innovation is a mutually exclusive phenomenon that also provides benefits. The functional value of stability must be tempered by providing for necessary innovation. The bureaucratic model does not provide for this distinction.

The defenders of the bureaucratic model say innovation, if it is truly functional, will overcome the structural inertia and be incorporated into the structure. The innovative factor will then be nurtured by this same umbrella of stability and be allowed to express its full value to the system.

The wisdom of this philosophy will be noted by educators who have witnessed periodic "innovations" that were little more than change for its own sake with results that proved to be highly dysfunctional. Many of these changes seem to be cyclical. In the early 1960's there was great concern among college students and their professors that higher education was without "relevance." The ensuing years kept us busy trying to adopt conceptual and curricular modifications as fast as they were developed. A large percentage of these modifications consisted of simply dropping structural requirements from the curriculum. As the current decade comes to a close, we see the same institutions replacing core curricula and structured programming. At the elementary and secondary level, our ten year romance with the "New Math" seems to have run its course.

Articulation, as defined in this project, may be a case in point. The degree to which it is functional to the established mission of education has not been fully established. It is a purpose of this project to aid in the establishment of the functional capacity of articulation.

Despite the disclaimers of the "scientific method," barefoot empiricism is difficult to achieve in the social sciences. Biases do exist and cannot be totally eliminated in any endeavor in which man is investigating that in which he has the greatest vested interest, himself. These biases can be partially controlled by rigorous adherence to sound methodology and a willingness to accept the limitations imposed by bias that the investigator introspectively identifies. This project does have a favorable bias toward articulation. Acceptable controls have been incorporated.

Real progress toward articulation, as noted by Bushnell and other, must come through the efforts of individuals at the Local Education Agencies. Bushnell says successful articulation requires that people be willing to make the effort necessary to understand each other's information and value positions, and "to support programs that transcend individual or organization interests in favor of the public good."(10) No doubt some of this altruistic feeling can be tapped and will serve the purpose. Some very recent reports, however, claim that we need not depend on altruism. They cite exemplary programs that show a net gain for both institutions when a well planned articulation program is implemented.

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(10)Bushnell, p. 3

CHAPTER THREE

JUSTIFICATION FOR THE PROJECT

Cooperative Education as the Experimental Variable

As illustrated in previous sections of this project, cooperative education, vocational education, and articulation in general have distinct problems. These problems, superficially, seem to be independent and it may appear that the investigator is compounding them in attempting to approach them as a group. There are undoubtedly many ways in which investigations of these problem areas could be approached. Research models must consider a number of variables and are subject to the constraints of limited time, funds, and availability of data. The model presented here makes no claim to being the only, or even the best, approach. Any such evaluation would be subjective. The defense of this model lies in two domains, general theory and objective criteria.

A Theory Of the Middle Range

Robert K. Merton, in expanding on the earlier work of Talcott Parsons, defines theory as a logically interconnected set of propositions from which empirical uniformities can be derived. On the grand scale, we seek a unified theory that will explain all of the uniformities of social phenomena. This is a search that may never be completed. In Merton's view, it behooves the investigator to work with manageable units of observable data that permit empirical testing (a middle range). In dealing with the relatively concrete rather than the relatively abstract we are more likely to make a smaller, but more valid contribution. Each investigation provides linkage to previous investigations and the "grand theory" will eventually emerge.

Any such middle range investigation is subject to a serendipity factor. We may discover by chance a value that was not being sought. A more conservative approach is to depend on observable phenomena and well developed logical constructs that are likely to maximize potential linkages. Cooperative education articulation appears to offer a middle range with excellent linkage potential.

Cooperative Education Linkages

Cooperative education administrators share an affinity that is not common to all vocational education, their mutual reliance on the current job market. The mutual problems serve as a base for mutual understanding. Similar commonalities can be found among other groups at each level. Instructors in any vocational field can, to some degree, identify with their counterparts at other levels in that field. Cooperative education people at both secondary and post secondary levels share other characteristics that make them an ideal experimental group:

1. They are a small group. The entire

population can be used in the project. Problems inherent to statistical manipulation can be minimized.

2. They are administrators. Their attitudes are more readily translated to policy and action, which increase the relevancy of their responses.

3. Cooperative education is a common thread running through all vocational areas. The potential for general application is increased through the involvement of cooperative education administrators in a wide variety of programs.

4. As noted by Dube,(1) the ratio of cooperative education counseling to placement approximates three to one. Student exposure and impact is therefore three times as large as enrollment statistics indicate.

5. Cooperative education administrators, in the course of their daily work, travel a great deal. They have much more opportunity to communicate than many other educators.

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(1)Paul E. Dube, "A View of Two Costs in Cooperative Education," (Boston:Northeastern University, 1978) p. 2.

6. Cooperative education is itself a relatively new and innovative program in many institutions. As such, it is more likely to be responsive to the innovative functions of articulation in a correlary reference group.

Reference Group Theory and Articulation

Reference group theory, as espoused by Kelly, Merton, Newcomb, Shibutani and others, is often used as a basis for understanding social statics and change. This theory notes that we use selective perception in matters of self-evaluation and attitude formation. A decision for or against the status-quo in any situation is highly dependent on the attitudes and beliefs of the relevant reference group within a sphere of activity. The reference group is those individuals to whom we, consciously or unconsciously, "refer" our behavior for approval. Most often this is a group to which we legitimately belong. At times it is a group to which we have aspiration for membership. In such cases, through the process of anticipatory socialization, the reference group influence is even more pervasive. The values we assimilate by this process often outweigh empirical evidence and strong logic to the contrary.

The mutual reinforcement concepts of reference group theory are of central importance in the selection of the experimental group for this project. Since it has been demonstrated that cooperative education administrators are a more cohesive group than is found in the general population, it is logical to expect that the attitudinal impact of significant others will be proportionally greater. Furthermore, since there is evidence that this same group has a greater propensity to change (i.e. articulate) it has an enhanced status as an experimental group for articulation investigation.

In the case of conflict, we do have negative reference groups to deal with. The phenomena noted under "Impediments to Articulation" most certainly provide for the formation of negative reference groups. This situation, at best, leads to ambivalence or indifference. It can lead to abiding and rigid rejection of the norms of the reference group: what Talcott Parsons would call "compulsive alienation."(2) Due to the idiosyncratic commonalities of the experimental group, it is expected that the positive reference group impact will override the impact of the negative.

Experimental Population

This project will cover the state of New Jersey in its entirety. There are several reasons why the state is ideal for a project of this size and nature. It is a small state minimizing the time and expense needed to visit all locations. There is an adequate group (sixteen) of community colleges serving a diversity of populations from the most urban to very rural. Within each county served by a community college, there is a vocational school system providing the opportunity for matched-pair investigation techniques. Since the project will survey the total population, error based on sample selection will not be a problem. Most importantly, since this project is expected to be followed by implementation of its recommendations, all units involved have a fiscal relationship with a single top level administrative authority: the Vocational Education Division of the Department of Education. A policy of this agency, granting funding priority to L.E.A.'s that emphasize program articulation, can be a decisive factor in effecting this activity.

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(2)Merton, p. 349

CHAPTER FOUR

REVIEW OF RELATED LITERATURE

Cooperative Education

Cooperative Education is part of the structural core of this project. As such, a substantial background study has been made. The Cooperative Education citations in the bibliography cover its history, philosophy, types of application, benefits, constraints, current trends, and predictions of its future. Several studies made in New Jersey over the past ten years have been invaluable. The Kalugin(1) and Agrawal(2) studies provided excellent material for survey instrument design applicable to the population under consideration. The published and unpublished Cooperative Education sources used for this project approximate an exhaustive compilation controlled for redundancy. Compared to other areas of education, a relatively small body of material is available. The major sources of this material are the research and training centers at Northeastern University. Authors such as Barbeau, Brown, Dube, Knowles, Wilson, and Wooldridge are ubiquitous in the literature. Similarly, Miller and Lupton of Florida and Bennett, Garmon, and Strandberg of California are sources of particular value.

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(1)Lloyd Kalugin, *The Effect of Selected Variables on the Cooperative Education Coordinator's Work Load at the Two-Year College Level*, (Edison:Middlesex County College, 1975).

(2)Ravindra N. Agrawal, "A Study of the Cooperative Education Programs in New Jersey at the Two-Year College Level, 1976-1977." (Ed. D. dissertation, Temple University, 1978).

Cooperative Education as it exists today owes its beginning to Dean Herman Schneider(3) at the University of Cincinnati. In 1906 he noted that much of what his Engineering students needed to learn could not be taught in the classroom. He saw the advantages of students working in the field with experienced professionals. Students have, of course, worked in combination with study throughout history. Dean Schneider, as noted by Barbeau and others, introduced the factor of coordination. The basic objective was to bring the work experience and classroom education into close coordination. As is true for many of the most worthy educational concepts, this idea of coordination is quite simple. Seaverns notes that it evolved from basic observations made by Dean Schneider during his years of teaching and practicing in the field of engineering:

> 1. Classroom education can never hope to teach all the elements of knowledge required for a successful career in any profession. Practical on-the-job experience with successful professionals in the field is a necessary supplement to classroom instruction.
>
> 2. Since the high cost of education is a paramount problem in this country, most students work part-time while attending

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(3) A Complete History of Cooperative Education from 1906 to 1971 by Joseph E. Barbeau is listed in the Bibliography.

> classes in order to earn a portion of the cost of their college education. With very few exceptions, these part-time jobs are not related to their career objectives and have little transfer value to the educational program of the students.(4)

Over the years, Cooperative Education has greatly surpassed the resolution of the problem presented in these two observations. The benefits students receive from enrollment in a Cooperative Education program have been published many times and, to some extent, are listed in most evaluation reports. The list compiled by Wilson and Lyons refers to the most significant and pervasive of these benefits:

> 1. By coordinating work experience with the campus education programs, theory and practice are more closely related. Students find their studies with greater meaning.
>
> 2. Coordination of work and study improved student motivation. As students see the relationship between the jobs they hold and the principles they are studying on the campus, greater interest in academic work develops.
>
> 3. More students in cooperative education develop greater understanding of other people and greater human relation skills. This comes about because their work experience involves them with co-workers who come from a variety of backgrounds, and because success at their jobs requires constructive relationships with colleagues. Particularly important in this connection is the value obtained from the contacts made with adults in a variety of situations, thus helping to break down the segregation of college students into wholly adolescent communities.

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(4) Charles F. Seaverns,, A Manual for Coordinators of Cooperative Education (Boston: Center for Cooperative Education, Northeastern University, 1974), p. 10.

> 4. Cooperative education helps markedly to orient college students to the world of work. It provides them with opportunities for exploring their own abilities in connection with real jobs. They are exposed to a direct means of gaining vocational information and guidance, not only about the occupations in which they are employed, but in a number of related fields as well.
>
> 5. Cooperative education makes higher education possible and attractive to many young people who could not otherwise go to college. The earnings of the students while on the job have enabled many to attend college who would not have financed their education without it. This is beneficial, not only to the individual himself, but also to the nation as a whole, with its increasing need for well-educated people in science, engineering, business, and other professions.
>
> 6. For many students, work experience brings a greater dependence upon their own judgment, and a corresponding development of maturity.
>
> 7. Cooperative education gives the students contacts which are useful in later occupational placement. It also gives many students a head start in salary and position when they graduate from college and go into full-time jobs.(5)

In a later publication, Harry Huffman developed a briefer listing (that is very succinct). He says Cooperative Education helps the student to:

> 1. Select an appropriate field of work or an occupation.
>
> 2. Learn skills of an occupation under actual conditions of employment and production.
>
> 3. Gain technical and related information which will enable the learner to engage in the

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(5) James W. Wilson and E. H. Lyons, Work-Study College Programs (New York: Harper and Brothers, 1961), pp.64-66.

work of the chosen occupation intelligently, safely, and confidently.

4. Make adjustments to the real employment setting including responsibilities, relations with other workers, and acceptance to supervision.

5. Make optimal application of school learning to a vocation and job learning to school work.

6. Learn to assume adult responsibility in work, in relation to peers, and in his community.(6)

To this point only benefits to the student have been considered. Cooperative Education also provides distinct advantages to employers and to the students' educational institution. Many lists of these advantages have been published. An extremely comprehensive study of employer benefits was conducted for Northeastern University by the Arthur D. Little Company(7).

The lists of benefits enjoyed by employers and institutions that have been derived in the literature seem to be quite consistent but vary in length. The following list is a compendium based on all available lists in sources noted in the bibliography:

Advantages for Employers:

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(6)Harry Huffman, _Guidelines for Cooperative Education_ (Columbus: The Center for Vocational and Technical Education, The Ohio State University, 1967), p. 87.

(7) Arthur D. Little, Inc. _Documented Employer Benefits From Cooperative Education_, the Report of a study for Northeastern University, (Cambridge, 1974.)

1. Faculty cooperation provides opportunity for employers to solicit periodic and/or continuing consultant advice from academic authorities.

2. Employers gain access to such university facilities as computerization, audio-visual recording, etc. through student assigned projects.

3. Regular employees gain opportunity to upgrade technical knowledge through participation in workshops, conferences, and/or course work at the educational institution.

4. Employers are provided with personnel who offer a higher level of skill and training than are customary at the low entry wage level.

5. Orientation and initial training time and costs usually required for new baccaleaureate employees are reduced if the latter have previously been employed under the cooperative plan.

6. The employing agency has an opportunity to influence educational programs and curricula in accord with today´s needs.

7. Critical evaluation from student-faculty participation stimulates reassessment of agency´s methods and practices.

8. Joint supervision of agency and educational institution optimizes training program achievements in terms both of improvement in educational quality and in the benefits of

shared costs in overhead, salaries, etc.

9. Student employment provides additional supply of manpower to meet short- term manpower needs without commitment to long-term (union) contracts.

10. Shared supervision provides opportunity for organizing structured training program tailored to manpower needs.

11. Through student-faculty operational studies, employers can investigate feasibility of research and development programs and projects which otherwise might be considered too risky to be undertaken.

12. Shared programs increase flexible use of employer's facilities and staff.

13. Joint articulation between employer and university provides a seedbed for sympathetic understanding of the goals of the agency, and the extension of good public relations with the community.

14. Broader and future-oriented goals of university provide opportunity for forward looking planning of the agency.

Advantages for Academic Institutions:

1. Opportunity to initiate and/or revise course offerings which reflect applications of the College's academic disciplines.

2. Stimulation for innovation in teaching methods and

programs.

3. Cost benefits through use of the placement agency's facilities for part of the teaching process.

4. Increased stimulation for faculty and student research projects.

5. Increased availability to funding (federal, state, foundations) through developing project proposals which combine the efforts of academic institutions with that of cooperating agencies.

6. Increased potential for citizen and/or agency support for institution.

7. Greater flexibility in use of available facilities and staff.

8. Continuous interchange with non-academic professionals which provides important feedback on the impact of theory on practice.

9. Exposure to and involvement in activities which utilize the latest facilities, equipment, methods, etc.

10. Attainment of a more precise understanding of the informational and skill requirements, personal adjustments and social interactions associated with various vocations.

11. Opportunity to influence modern trends in business and industry in line with developing research.

12. Improvement in relations between community and school.

13. Improved knowledge and awareness of the educational resources of the community.

14. Opportunity for leadership in developing responsiveness of academic institutions to the needs and aspirations of the society in which they exist.

15. Affirmation of the potential for a pragmatic technological orientation to the "liberal studies" in today's society.

Vocational Articulation

The second major body of literature relevant to this project is in the field of Vocational Articulation. Although Vocational Education in its general context is only peripheral to this study, most of the useful material on articulation has been published under its banner.

Section 1202 of the 1972 ammendments to Higher Education Act of 1965 mandated that each state establish a planning agency. These agencies have been a source of much activity resulting in reports that are cited in the bibliography of this project. Articulation, like Cooperative Education, owes much to the twin pedagogical change agents: politics and money. The Congressional mandate allowed the Office of Education in the Department of Health, Education and Welfare to provide comprehensive planning funds for the post-secondary education sectors within the states.

Presumably because it was a sound approach as well as the line of least resistance, much of this planning has been directed at vocational education. There are undoubtedly many other factors motivating articulation research but it is an interesting coincidence that a manual ERIC search shows most material dated after 1972.

The recency of much of this material on articulation is a mixed blessing. The investigator can be sure he is dealing with the latest information. On the other hand, follow-up implementation of the recommendations of many of these studies is just beginning. A number of statewide articulation programs will be publishing updated reports a tantalizingly short time after the projected completion date of this project.

A sufficiently large and geographically distributed number of studies have been identified to serve as a background for this project. The titles of these studies, as listed in the bibliography, are descriptive of their content. Works of particular relevance to this project have been selected for further discussion.

The MAVE Study:

Project MAVE (Model for Articulated Vocational Education) is funded by the Division of Adult, Vocational and Technical Education, Illinois Office of Education. Its purpose is to provide a formal articulation mechanism for interinstitutional coordination of vocational programs and services throughout the State of Illinois. In March, 1977, Project MAVE conducted a state wide survey similar to what was done in this project. Rather than attempting to survey all pairs of potentially articulating LEA's in the state, MAVE used a random sample of institutions and solicited multiple responses from each institution. Although counselors and instructors were included in the survey, the majority of respondents were administrators. A total of 1,094 responses were collected from 368 institutions at all levels from elementary school through the community college.

The study was designed to focus on the following goals: 1. To identify and learn about the effective activities that can be utilized to enhance articulation. 2. To identify who should assume responsibility for articulation and who should be involved in the process. 3. To identify barriers to improved or expanded articulation.

The following conclusions were reached as a result of this survey:

1. The rank order of activities checked as being most effective is as follows:

   a. Building a cooperative climate
   b. Expanding communication among staff
   c. Joint involvement in program planning
   d. Student assessment and placement within program
   e. Reciprocal visitations

f. Sharing facilities, resources, personnel, inservice programs, etc.

2. The dean or local director of vocational education is perceived by all institutions except small unit districts as being the top choice for articulation responsibility. A likely reason for small unit districts responding this way may be the fact that many do not have full-time directors of vocational education.

Guidance counselors were a popular choice in area vocational centers, large high schools, and large and small unit districts.

Community colleges responded in favor of vocational instructors as having articulation responsibility.

Principals and chief school administrators were perceived as having articulation responsibility within small unit districts.

3. The two largest barriers appeared to be lack of a formal articulation mechanism and feeder school personnel not emphasizing articulation.

Project MAVE has also published a handbook for developing a formal articulation system which encompasses all institutions from kindergarten through the community colleges. It is MAVE's intent to encourage the use of this handbook as a guide throughout the State of Illinois and to share these concepts with other agencies.

The Gallon-Wattenbarger Study:

In this study, Gallon and Wattenbarger note that, by law, all 28 Florida community college districts have coordinating councils to coordinate and articulate programs between the colleges and the secondary schools. They further note that, in spite of general agreement as to the potential of these councils, most of them were considered ineffective in carrying out their mandated functions. Gallon and Wattenbarger developed a set of guidelines for implementing effective council procedures and practices:

1. Coordinating councils should be used to examine the areas where there are dual assignments of responsibilities. Such councils need the active interest and support of the boards involved. Funds should be released only to programs recommended by the council after confirmation by the responsible board.

2. The procedures recommended in small groups and committies should be implemented to the greatest extent possible in operating these coordinating councils.

3. Coordinating councils do not have the authroity to implement their decisions. These councils make recommendations to the county school board(s) and the community college board of trustees through the superintendent and the president. In order that the members

may be informed of what action has been taken on their recommendation(s), constant follow-up should be performed by the council.

4. A concerted effort should be made to inform members of the district board of trustees and the school board members of the role of the coordinating council and its relationship to these boards.

5. To assure a more productive relationship between the boards and the coordinating councils, board members should be periodically invited to attend council meetings.

6. A full time individual is needed to carry out the day-to-day activities of the council. The employment of this individual is not intended to usurp the responsibilities of the council but the areas of assistance are so numerous that an enthusiastic and knowledgeable educator could strengthen the work of the council by providing continued attention to the details.

7. The board of trustees and the school board should request that the president and superintendent make periodic reports to them regarding the latest dvelopment in the area of vocational education that relate to the functioning of the council.

8. A test of the adequacy of a state´s educational finance policy is to conduct periodically systematic studies to determine the extent to which the entire plan of financial

support is adequate and equitable for providing the best educational system. It would be difficult if not impossible to develop an educational formula for distributing funds without some criticism. However the state legislature should devise a more adequate financial policy to encourage and assure quality education in all of the state's public institutions.

9. Council members should meet with the legislators representing the community college district to discuss matters which affect the role of the council.

The councils studies by Gallon and Wattenbarger seem to have much in common with the state sponsored County Coordinating Councils within each county of New Jersey. These guidelines will be given consideration in the recommendations and conclusions of this project.

The Pennysivania Conferences:

The Center for the Study of Higher Education at the Pennsylvania State University sponsors annual conferences on post secondary occupational education. Articulation with secondary institutions is a major theme of these conferences. The fifth conference in 1974 included reports on articulation in Massachusetts, Oklahoma, Pennsylvania and the nation in general. Reports from these conferences are published by the Pennsylvania State University and reprinted by ERIC. Collectively, these reports give the reader a broad background of history and progress in this area.

In spite of broad interest in articulation as demonstrated by publications and conferences such as these, articulation obviously has a long way to go. In his address to the fifth annual conference in 1974, Lowell Burkett, the Executive Director of the American Vocational Association, said:

> One of the most pressing needs of vocational education today is the necessity for better coordination between secondary and postsecondary vocational education programs. In most states it is difficult, if not impossible, for the student who has been enrolled in a vocational or technical program in high school to build on what has been learned and continue education in a vocational or technical program at the postsecondary level. In many cases, the student receives no credit for his previous training and is required to start over from "scratch," repeating instruction and wasting time and energy.

This is, indeed, a very sad commentary on the present state of secondary-post secondary articulation in the nation.

Descriptive Studies:

An extensive search of the literature uncovered four studies of state wide articulation that are particularly comprehensive. All four are available in their entirety as ERIC reprints.

Manley's study of the North Carolina system(8) and the

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(8) Fred W. Manley, Articulation Between North Carolina's Public System of Elementary and Secondary Schools and Public Systems of Tehcnical Institutes and Community Colleges. Bethesda: ERIC Document

Minnesota Research Coordinating Unit for Vocational Education final report(9) are detailed analysis of history, progress, and prescriptions for the respective states. They present step-by-step investigations of secondary-post secondary articulation in overview and include a broad range of theoretical and experienced ramifications. The Minnesota study used auto mechanics and clerical occupations for pilot studies but projected their findings to the broad spectrum of vocational education.

A study by the Division of Vocational Education, Louisiana State Department of Education(10) and Baker and Zane's report on articulation in Hawaii(11) both give detailed models for the development of articulation within specific disciplines. The Baker report is particularly comprehensive. In two volumes, Baker covers a large number of programs and the report includes such details as questionnaires and samples of course descriptions and examinations for credit.

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(9)Minnesota Research Coordinating Unit for Vocational Education, *Developing Articulated High School and Post High School Vocational TEchnical Curricula in Minnesota: Final Report*. Bethesda: ERIC Document Reproduction Service, ED 118 749, 1975.

(10)Louisiana State Department of Education, *A Study for the Articulation of Competency-Based Curricula for the Coordination of Voc-Tech Education Programs in Louisiana: Final Report*. Bethesda: ERIC Document Reproduction Service, ED 124 771, 1976.

(11)John H. Baker and Lawrence Zane, eds. *Collaborative Roles and Functions of Occupational Education Programs*. Bethesda: ERIC Document Reproduction Service, ED 099 007, 1974.

Institutions that are currently involved in comprehensive articulation with their counterparts will find two sources to be valuable in the enhancement and expansion of their programs. These are McKinnerney's "Student Articulation Guide"(12) and "A Handbook for Articulating High School and Community College Career Programs" by Opachnich and Linksz.(13) Most secondary - post secondary articulation programs maintain a very distinct split between the high school and college as to faculty and administrative function. Students are likewise identified as either high school or college matriculants at a given stage of their educational career ladder. Lieberman's study(14) investigates a number of alternatives. She discusses articulated programs that offer flexible enrollment opportunities for students who may be simultaneously enrolled in college and in secondary programs. She examines five types: 1. early admission, 2. split day, 3. college courses taught by college faculty at high schools, 4. college courses taught by high school faculty at high schools, and 5. "separate" setting programs (separate faculty and differentiated curricula in separate facilities). The strengths and weaknesses of each type are analyzed, as are barriers to acceptance of these programs.

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(12)B. R. McKinnerney, Roy Thomas and Herman R. Todd, *Student Articulation Between SEcondary and Post-secondary Education: A Suggested Guide*. Bethesda:ERIC Document Reproduction Service, ED 096 412, 1974.

(13)Cheryl A. Opachinch and James J. Linksz, *A Handbook for Articulating High School and Community College Career Programs*. Bethesda: ERIC Document Reproduction Service, ED 104 455, 1974.

(14)J. E. Lieberman, *Report on Articulated Programs Coordinating Secondary and Post Secondary Institutions*. washington, D. C.: Fund for the Improvement of Postsecondary Education, 1976. ERIC Document Reproduction Service ED 139 468.

Since this project is specifically addressing conditions in New Jersey, publications concerning the laws, directives, guidelines, and constraints imposed by the state bureaucracy are involved. There are constraints concerning New Jersey Community Colleges, Vocational Schools, Cooperative Education Programs, and matters of general education policy. Any recommendations for change evolving from this project must be in compliance with these regulations. The alternative of changing regulations and laws is not considered for two reasons: 1. A single research project is not likely to provide evidence of need sufficient to generate change. 2. More importantly, current regulations appear to be broad enough to encompass recommendations. what is more likely to be needed is for the state and the LEA's to implement suggestive and permissive provisions of the laws and regulations that now exist but are generally ignored.

The State Plan

The current New Jersey State Plan for Vocational Education was adopted on July 1, 1972. One of its major purposes, and perhaps the motivating force for its development, was to comply with the Vocational Education Amendments of 1968 and Part F of the Higher Education Act of 1965. Part One of the State Plan sets forth specific citations of compliance with the federal laws and outlines administrative provisions for implementing the plan. Part Two is a yearly update of the annual and long-range plan. In total overview, the State Plan is concise (although fully detailed), well organized, and easy to read. Each goal is covered in a modified "Management by Objectives" format. Goals, objectives, and activities are clearly delineated and matched with current budget figures. (excerpts concerning cooperative education in Appendix).

A major fault in the New Jersey State Plan is its almost total lack of reference to post secondary institutions. The single large source of funds for new vocational program development (and to a lesser extent, cooperative education development), is federal vocational education money distributed by the State. In New Jersey, these funds are handled by the Division of Vocational Education as a unit of the Department of Education. Post secondary institutions are governed by an autonomous Department of Higher Education. This paradox has led to a number of unfortunate but predictable correlaries:

1. Of the forty pages titled "Annual and Long Range Planning and Budgeting," in the State Plan, only two are devoted to post secondary

planning.

2. Only fifteen percent of the vocational funds available in the state are reserved for post secondary programs.

3. The State provides for "post secondary" programs in the nominally secondary Area Vocational Schools. This gives the secondary institutions access to the limited funds earmarked for post secondary programs.

4. As required by federal law, there is a State Vocational Advisory Council. This Council has very broad powers in planning, budgeting, and evaluating vocational education in the state. Of the twenty-three members of the New Jersey Council, only one represents post secondary (community college) institutions.

5. In areas where secondary and post secondary methods of operation tend to vary, such as in cooperative education, the plan addresses itself only to the secondary model.

Since the State Plan is so single mindedly prepared by and for secondary institutions, there is little occasion to include references to guidelines for articulation.

In actual practice, the potential for articulation is not as restricted as relevant documents would indicate. The Commissioner of Education and a number of his deputies and department heads personally encourage articulation. Future annual updates of the State Plan may reflect this attitude. At the local level, each county has a County Career Education Coordinating Council. The goals of these councils, as specified by the State, are:

1. To become familiar with all career development and vocational-technical programs within the county.

2. To develop a comprehensive County Plan for Career Development with emphasis on vocational-technical education.

3. To assist in the implementation of the County Plan for Career Development.

4. To encourage local school districts to implement a sequential progression of career development and vocational-technical programs and services.

5. To assist in comprehensively assessing the career development and vocational education needs within the County.

6. To establish a priority listing of approved broad program areas which shall serve as funding recommendations to the Division of

Vocational Education.

7. To maintain those activities for meeting the overall goals of the County Career Education Coordinating Council.

It is notable that these goals are rather broad and leave much room for interpretation at the local level. This is as it should be since each county has distinctive problems and diverse resources to address their problems. On the other hand, nonspecific goals do not provide much impetus to overcome inertia nor do they provide a method for control or evaluation.

Each county has a coordinator who acts as an executive secretary for the council and performs other liaison functions between the Division of Vocational Education and county LEA´s. The coordinator is appointed by the Division of Vocational Education, but invariably with the advice and consent of the county superintendent. As a rule, the county college is not involved in this decision. The efficacy of these coordinating councils will be partially revealed in the analysis of data collected by this project. It is expected that much will be found in common with the Florida councils as related by Gallon and Wattenbarger.(15) An attempt will be made to apply the guidelines they developed (as noted in the literature review) to New Jersey councils.

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(15)D. P. Gallon and J. L. Wattenbarger, _District Coordinating Councils for Vocational-Technical and Adult Guidelines for Implementation_ Gainesville: Florida University, Institute of HIgher Eucation, 1976. ERIC Document REproduction Service ED 124 260.

CHAPTER FIVE

METHODOLOGY AND PROCEDURE

Jury

A jury of ten professionals in appropriate related fields has been selected to oversee all aspects of the experimental component of this project. Members of the jury represent vocational schools, community colleges, Cooperative Education administrators at both secondary and post secondary levels, members of the New Jersey Department of Education, and nationally known experts in Cooperative Education. Complementing the efforts of the Project Committee, this jury will ensure the academic integrity, methodological rigor, and applicability of the project.

Parameters

Each of the sixteen New Jersey Community Colleges having a Cooperative Education Program has been included in the study. Each college is in a separate county and has a counterpart vocational school system which has also been included in the study. Questionnaires have been developed based on similar instruments successfully used elsewhere, original concepts, and suggestions from the jury. Responses have been solicited from both the chief administrator and the Cooperative Education operating administrator at each institution. They were asked to supply information of two types: 1. Actual activity in their institution directed at articulating Cooperative Education in collaboration with the complementary system in their county. 2. Their attitudes and opinions toward general concepts and specific changes concerning articulative activity.

Hypotheses to be Examined

As stated in the introduction, the purpose of this project is to investigate the current status of secondary-post secondary articulation of cooperative work experience programs, to identify impediments to the process, and to formulate recommendations for its enhancement. The criteria for an operational model of an "ideal type" of fully implemented articulation are listed on page ten. Existing conditions considered conducive to the implementation of articulation activity are listed on page thirteen. A taxonomy of variables considered to be impediments to the process is listed on page fourteen. Working within the context of this structure, the project will investigate the following hypotheses:

1. A working statewide plan for Cooperative Education articulation does not exist in New Jersey.

2. Articulation, as operationally defined, is being segmentally implemented within some counties of New Jersey.

3. There is a general consensus within the experimental population that additional articulation is desirable.

4. There is a difference of opinion between chief administrators and Cooperative Education administrators as to the desired amount and direction of articulation.

5. There is greater correlation between the responses of Cooperative Education administrators than between chief administrators.

6. There is general consensus as to a body of articulation activity that could be immediately adopted within each county and within the state.

Operational Definitions

Education is addressed by many disciplines and, within each of these disciplines, there are ambiguities as to the specific meanings of certain words. These ambiguities increase exponentially when we attempt to derive a common mutually understandable language. The following definitions will be used throughout the course of this project. A major attempt has been made to have the terms agree with definitions used by the New Jersey Department of Education.

The basic justification for the definitions selected is to insure internal validity.

Administrative Level:

This term refers to the four categories of President, Director, Superintendent, and Coordinator. (see respective operational definitions).

Articulation:

The activity of educators at the local level to discover, establish, and continually improve relationships between policies, plans, procedures, programs and people.

Avocation:

Conscious effort directed at an activity whose primary purpose is coping or relaxation. Pecuniary benefits may derive from recreation as an ancilliary function.

AVTI:

An abbreviation for Area Vocational-Technical Institution (In New Jersey, Area Vocational-Technical Schools). A secondary educational system, or division of a system, that has as its primary purpose the provision of vocational technical education. Basic skills and traditional high school courses may be a part of the curriculum. AVTI´s often offer post secondary programs, particularly in their evening division.

Career:

The totality of work and recreation done throughout the course of a lifetime.

Community College:

An educational institution whose primary mission is to provide curricula leading to a certificate or degree above the secondary school level. Secondary Programs may be offered, although usually on a remedial basis.

Cooperative Education:

The National Commission for Cooperative Education has established the following definition of Cooperative Education: "It is that educational plan which integrates classroom experience and practical work experience in industrial, business, government, or service-type work situations. The work experience constitutes a regular and essential element in the educative process and some minimum amount of work experience (at least two different periods of work, totaling at least 16 weeks) and minimum standards of performance are included in the requirements of the institution for a degree. In addition, there must be liaison between the administration of the institution and the employing firm. The essential criteria are that the work experience be considered an integral part of the educational process, and that the institution take a definite responsibility for this integration." (Note: The National Commission is currently considering revising this definition.)

Cooperative Work Experience:

Any program in which the institution has an involvement in employment, paid or unpaid, of currently enrolled students for any purpose other than, or in addition to, the generation of wages. Cooperative Education is subsumed by Cooperative Work Experience, but all Cooperative Work Experience Programs do not qualify for the title of Cooperative Education.

Coordinator:

Cooperative Education at the secondary level in the State of New Jersey is highly fragmented. The senior operating administrator varies between institutions. Additionally, there may be more than one such program within each county. To maintain internal consistency for this project, the County Career Education Coordinator was selected as the potential respondent representing secondary cooperative education. His responsibility crosses all school district lines and he acts as liaison for all programs in the county.

Director:

The senior administrator of Cooperative Education within a county community college in the State of New Jersey.

Education:

The totality of experiences through which one learns.

Evaluation:

An on-going process of activities and procedures to determine the status and quality of programs in accordance with their previously stated goals for the purpose of making decisions relative to program improvement or modification.

Institutional Level:

This term refers, generically, to the dichotomous split of respondents between post secondary administrators (presidents and directors) and secondary administrators (superintendents and coordinators).

Local Educational Agency (LEA):

A legally constituted local school authority having administrative control and direction of public elementary or secondary schools in a city, county, township, school district, or political subdivision in a state, or any other public education institution or agency (such as a junior or community college or state-operated area vocational school) having administrative control and direction of an education program.

President:

The chief administrator of a county community college in the State of New Jersey.

Professional Position:

This term refers, generically, to the four categories of President, Director, Superintendent and Coordinator. (See respective operational definitions).

Secondary School:

An educational institution whose primary mission is to provide curricula leading to a diploma at a level below college programs; usually the equivalent of a high school diploma.

Superintendent:

The chief administrator of the secondary school system in each county having a Cooperative Education program. This is usually a superintendent of the county vocational school system who may report to a senior superintendent of all secondary education. Occasionally this position is held by an assistant or vice superintendent. **Vocational:**

The totality of effort and activity related to work.

Work:

Conscious effort, other than that involved in activities whose primary purpose is either coping or relaxation, aimed at producing benefits for oneself or others.

Data Collection Method

Survey instruments were mailed to the business address of each specifically named administrator along with an individually prepared cover letter. Follow-up consisted of (at two week intervals) a letter, a telephone call, and a campus visit.

Survey Instrument

Since part of the analysis of data collected by this project will examine relationships within each county between matched pairs of secondary and post secondary administrators, a single instrument will be used. The questionnaire will contain questions of two types; what articulation activity exists in the mind of the respondent and what activity the respondent considers desirable. Additionally, the second response area will include questions to identify the respondents reasons for supporting a given activity.

The seven page questionnaire is divided into six sections. The first two sections identify the respondent and supplies demographic and statistical information about the respondent's L.E.A. The third section sets a frame of reference for the balance of the questionnaire. Four statements are presented that represent general public concerns about vocational articulation. These are statements derived from a national study by the National Association of Community and Junior Colleges. The respondents are asked their opinion on each statement. Although the results of this section will be analyzed, the primary purpose of the section is to sensitize the respondent to the issues. It is expected that the respondent will thereby complete the questionnaire in a more conscientious and open manner.

The fourth section elicits the respondent's evaluation of the status of articulation between the respondent's L.E.A.

and its counterpart. This section asks for yes or no answers as to whether a particular articulative activity has or is taking place. It is expected that there will be less than perfect correlation between respondents in the same county group and even between respondents in the same L.E.A. These correlation levels will provide additional insight over and above factual information gathered in this section. The fifth section asks questions about the respondent's personal attitude concerning his own institution and students, the counterpart institution and students, and about articulative activities. This section recognizes the importance of attitudes in understanding, and in any attempt to modify, the status of articulation. This is particularly true when 50 percent of the respondents are the chief administrators of their L.E.A.

The last section of the questionnaire asks the respondent to weigh the impact of eighteen factors that could impede articulation and to identify other factors not listed. This will serve as the "why not" category to be applied to other sections of the questionnaire. If any action is expected as a result of the recommendations of this project, it will be necessary to address most if not all of the major impedements as identified and weighted by the respondents to this questionnaire.

Much more information than will be provided would be very useful. A survey of research methodology literature and a pre-test has shown that a longer questionnaire would be detrimental. A sharply reduced response rate would outweigh the advantages of the additional information gained from those who did respond. There are seventy-six responses requested on each questionnaire. The pre-test established that it takes a minimum of thirty-five minutes to complete the questionnaire. It was decided that college presidents and county superintendents would not take the time to respond to a more lengthy questionnaire.

The nature of this project requires that the questionnaire not be anonymous. It is recognized that this could result in less candid responses. Strengths in any research design have concomitant weaknesses. This design values complete response and the ability to employ matching and follow-up techniques at the expense of advantages attributable to anonymity of respondents. A sample of the instrument is in the appendix.

ANALYSIS RATIONALE

The data will be analyzed and reported both as a collective matrix and in groups as needed to explore the hypothesis

Statistical applications will be selected in consultation with the Jury and the Committee. Available evidence suggests that the results of this survey, as has been found in the results of previous similar surveys, will not require extensive statistical manipulation. Actual needs will be determined during the course of the project. "T" tests for correlation and chi square for significance will probably suffice. The data will not be gathered by sampling. The entire population will be surveyed and the response rate is expected to reach 80%.

As noted in previous sections of this proposal, analysis of collected data will be based on structural functionalism, the predominant theoretical overview used in Sociology, and frequently applied by other social scientists in matters concerning human interaction. More specifically, the analysis will use three of R. K. Merton's "middle range" theories (reference group, manifest-latent function, and role set) to explore the hypothesis (page 28-29) and to validate conclusions that are expected to evolve (page 36). To accomplish this end, these theories will be applied to data collected by the questionnaire and to statistical and demographic information supplied by other sources.

In theoretical abstraction, it can be demonstrated that the above three independent "middle range" theories are not only inter-related, they are mutually supportive when applied to a data base. As stated by Merton, "The central orientation of functionalism- expressed in the practice of interpreting data by establishing their consequences for larger structures in which they are implicated- has been found in virtually all the sciences of man. . ."(1) As discussed in earlier chapters, these are the root concepts that most theorists use to discuss statics and change in human behavior. Merton notes that this approach affronts all those who believe that specific socio-psychological structures have inherent values. It may be for this reason that some researchers strive to contort these simple principles into "new" theories that often only obfuscate the issues. It is beyond the scope of this project to become deeply involved in a discussion of intellectual perversions. It is sufficient to say that this investigation will cleave to Merton´s postulate of indispensability; "to seek social change, without due recognition of the manifest and latent functions performed by the social organization undergoing change, is to indulge in social ritual rather than social engineering."(2)

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(1)R. K. Merton, p.101

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(2)Ibid., p.135

Research Expectations

Based on analysis of collected data and ancillary information presented in earlier chapters of the project, the following results are expected:

1. The actual status of secondary-post secondary articulation of cooperative work experience programs in the state of New Jersey will be known.

2. Impediments to the expansion of articulation within this population will be identified.

3. Attitudes and beliefs about the values and limitations of articulation by administrators in positions to make changes will be known.

4. Limitations of this study will be noted and recommendations for both further study and implementation will be identified.

5. Stated hypothesis will be evaluated.

CHAPTER SIX

ANALYSIS OF DATA

Data Collection

As stated in the introduction, the purpose of this project is to maximize application of findings to enhance secondary - post secondary articulation in the State of New Jersey. Accomplishing this required an extremely broad response base. The goal was achieved at a level surpassing expectations.

One factor contributing to the response rate is that the project was sponsored by the State Department of Education. The heading of the questionnaire notes this and a number of State officials helped elicit responses through letters and telephone calls to population administrators.

There are twenty one counties in the State. Four categories of administrators were polled; Community College Presidents, County Superintendents, College Cooperative Education Directors, and County Vocational Coordinators. Not more than one of each category operationally exists in each county. Since four counties do not have community colleges and three colleges do not have cooperative education programs, (as operationally defined) the entire population consists of seventy-three individuals. Questionnaires were sent to each and the responses received are listed in Table I.

with an overall response rate of 92% of the entire population, the validity of research findings should be very high.(1)

There is, of course, the problem of responses not representing actual conditions. The questionnaire covers material that is controversial and that affects funding patterns in the State. There is undoubtedly some bias toward reporting officially desirable conditions. To keep this tendency minimized, the project has been conducted in a manner that assures anonymity to the respondents. After the data was coded and entered in the computer, the questionnaires were sealed for destruction upon completion of the project.

In spite of these precautions, some allowance must be made for the political implications of responses. There is little the researcher can do to overcome this problem. Charles R. Doty reports a similar experience in another recent research project for the State of New Jersey.

> Although the first three problems of this study are strictly concerned with correctly counting the persons enrolling in postsecondary and adult vocational education, most persons with whom the investigator talked answered in terms of funding. To quote what was said several times, "I know what you want! But eventually this will be used in funding decisions so I am going to answer that

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(1)Since the experimental group consisted of the entire population and the response rate was 92% There is little need for the application of inferential statistical methods to demonstrate significance.

way."(2)

Doty's Project elicited these responses to a questionnaire designed to establish the parameters of "Full Time Equivalent," "Postsecondary Vocational Education," and "Adult Vocational Education." All three of these terms are used to establish formulas for State financial aid to institutions.(3)

As in the case of Doty's work, the economic and political nature of the project questionnaire did, however, serve a higher purpose. The extremely high response rate was partially a function of the concern given to these issues by the respondents.

The survey instrument (Appendix 1) solicits 71 responses from each respondent. All responses were fed into the computer for item analysis. A total of 639 tables were generated, reflecting each item on a nine-fold matrix. The matrices grouped the data as follows:

1. All responses

Responses grouped by professional position:

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(2) Doty, Charles R. Full Time Equivalent (FTE) and Definitions for Postsecondary Vocational Education and Adult Vocational Education. Report to the Department of Higher Education, State of New Jersey, 1978 p. 6

(3) Question B-2 of the questionnaire for this project asked for the "F.T.E." of the institution. Inconsistancies in reporting the F.T.E.'s were so extreme that this question was voided in tabulating the data.

2. College Presidents

3. College Cooperative Education Administrators. (See operational definition)

4. Vocational School Superintendents

5. Vocational School Cooperative Education Administrators

Responses grouped by administrative level:

6. Presidents and Superintendents (2 and 4 above).

7. College and Vocational School Cooperative Education Administrators (3 and 5 above) Responses grouped by institutions level:

8. College Presidents and their Cooperative Education Administrators (2 and 3 above).

9. Vocational School Superintendents and their Cooperative Education Administrators (4 and 5 above).

For simplicity in the tables and in narrative discussion of the data, groups two through five will be referred to as (respectively) Presidents, Directors, Superintendents, and Coordinators.

A complete analysis of the data requires the comparison of intra-county responses. Tabulations for this purpose contain only responses from counties in which all four professional positions exist and all four responded to the questions in that particular section of the questionnaire. The exact number of counties available for this purpose varies and is noted on the relevant tables.

Additional information concerning the statistical grouping of questionnaire responses may be found in the operational definitions section.

General Attitudes

The first major section of the questionnaire, after respondent identification and institutional demographics, surveyed respondents' attitudes toward general concerns of career education. They were asked to note their level of agreement with four statements (discussed under general problems on pages 16 and 17). These statements represent the consensus of several hundred vocational educators nationwide. In a series of regional workshops, these educators agreed that the following conditions and attitudes are prevalent throughout the Nation:

1. An increasing concern with the improvement of program quality. Earlier efforts directed toward simply responding to the demand for new programs are now being turned to exploring ways in which better program quality can be achieved.

2. Shrinking enrollments at the secondary school level. High schools (and their closely related adult schools) are aggressively marketing their programs to adults to replace lost revenues. Conversely, colleges are developing in areas formerly restricted to secondary schools.

3. Increasing costs. The current demand for accountability and improved efficiency reflects the public's (and their political representative's) concern that educators are feathering their own nests at the expense of the taxpayer.

4. Competency-based instruction. Paralleling the concern with rising cost is the growing recognition that there ought to be better ways of assessing a student's competency; thereby, shortening the the time required to reach a prescribed level of performance.

Respondents were asked to express their level of agreement with these statements on a five point scale: 1) I strongly agree, 2) I agree somewhat, 3) Neutral, 4) I disagree somewhat, and 5) I strongly disagree. Accordingly, in recording this data, larger digits represent a proportionately greater disagreement with the statements. Responses to these statements are displayed on Tables II and III.

The data shows that the survey population concurs with their colleagues in the nation at large. The mean response of all categories of respondents to all statements was to agree with the statements with a rating score of 2.291 with a standard deviation of 1.696. The high standard deviation is partially the result of responses being in full digit discrete increments on a five point scale. This is in addition to the normal function of a high standard deviation showing wide variations in individual scores. Respondents were not able to select mid-points between strongly agree and somewhat agree.

Responses were also grouped into the three control categories; Professional Position, Administrative Level, and Institutional Level. This generated 32 groups. With only three exceptions, the modal response of each group was 2 (agree somewhat). The exceptions can be seen on Tables II and III.

It can be concluded that the attitutes of the project population, although showing high individual variability, are generally in agreement with the attitudes of their counterparts throughout the nation as measured by these variables. Existing variations in attitudes internal to the population may be noted on the tables.

Hypotheses Evaluation

The project investigates six hypotheses. Each hypothesis is given individual consideration on the following pages. The data used and evaluation method are discussed for each hypothesis.

HYPOTHESIS 1:

A working statewide plan for cooperative education articulation does not exist in New Jersey:

The key word in this hypothesis is "working". That a de jure plan exists is demonstrated by the State plan and the County Career Education Coordinating Councils (discussed on pages 58-73). The question is whether their efficacy level is sufficient to say that a de facto plan exists.

Section "D" of the questionnaire asks if 15 specific examples of articulation activity exist at the respondents local educational agency or within their county. Responses to these questions are shown in Table 5. Only 14 questions are tabulated due to the ambiguity of question 15. This ambiguity was not noted until respondents reported problems in responding to the question.

The individual questions in the following list are extracted from the questionnaire and keyed by number to the tables reporting "articulation activity." Individual responses are coded yes, no, or no response.

1. Do formal agreements exist between your institution and its counterpart stating how you should collaborate in your efforts to provide career education?
2. Are criterion referenced evaluation methods used to grade your students?
3. Does the community college grant appropriate advance credit and placement for vocational school courses?
4. Does your institution plan to increase its efforts to ascertain the career success of its

graduates?

5. Are there any joint planning or advisory committees serving both you and your counterpart (other than the official county coordinating committee)?

6. Are there any shared job placement or counseling programs between your school and its counterpart?

7. Other than for the state vocational education budget, is there any shared input into budgets between you and your counterpart?

8. Do you meet at least once a year with counterpart administrators in your county to discuss cooperation in occupational subject areas?

9. Do you visit local counterpart occupational programs in operation to observe instruction and assess the implications of the instructional offering for programs at your institution?

10. Has the community college been involved in discussions with the local high schools regarding the development of four-year occupational programs which would include basic preparation in the last two years of hish school and specialized work continued at the community college?

11. Is there, in your county, a set of guidelines or a policy statement which clearly indicates what subject areas are considered high school level and which are considered community college level?

12. Does your community college offer an occupational program which is designed to prepare graduates for employment, in some area, at a level similar to that prepared for by a program at a local high school or area vocational/technical school?

13. Do you have on your campus a specialized occupational facility which is used by high school vocational students as well as by community college occupational students?

14. Does your community college and the local school system jointly appoint faculty members in highly specialized occupational subject areas?

Collectively, the existence of all fourteen activities in all twenty-one counties would constitute an "ideal type" statewide articulation plan for secondary-post secondary programs. Ideal types, however, are simply logical constructs. They never exist in reality. We construct them for use as a criterion. Since a perfect match to the ideal type is never to be expected, the investigator must set a level of attainment appropriate for his purpose.(4)

For the purpose of testing this hypothesis, a 50% match of the ideal is considered to be sufficient. That is, if even half of the potential articulation activities exist, it will be established that a working statewide plan for articulation exists.

Table 10 shows that a total of 938 positive responses as to the existence of articulation activities were possible. Only 452 (48.2%) of these responses were positive. within the nine-fold matrix of response groupings, only two cells exceeded 50% positive response. These were Directors (53.3%) and Operating Administrators (52.1%). These results show a biased (toward the positive) view of the actual situation. Table 10 reports individual responses across all county lines.

Since articulation can, operationally, only exist within a county in most cases, a truer picture is drawn by Tables 8 and 9 and illustration 1. Table 8 shows the number of positive responses to each articulation activity by all four professional positions and by intra-county response. Table 9 adds weight to the responses on Table 8 in accordance with the added impact of multiple positive responses. The weight scale (see weight key on Table 9) assumes that there is a very definite advantage in not only the number, but the intra-county combinations of respondents reporting the existence of an activity. Obviously the strongest evidence of a given act of articulation is having

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(4)Peter M. Blau and Marshall W. Meyer, Bureaucracy_in_Modern_Society,p.23 (The concept of "ideal types" is thoroughly covered in this work.)

all four respondents in the county say it exists. The weights applied are further based on the specific combinations of individuals reporting as can be seen in the key.

When put to this severe but more appropriate test, the true status of articulation seems much more dismal. Under the ideal type model, the weighted scores on Table 9 would total 14,070. The actual total weighted score is 963 or only 6.8% of the potential. Only one activity, number 4, managed to score at the 10% level.(5)

By two methods of measurement, it has been demonstrated that articulation, as operationally defined and measured against a stated criterion, does not exist. The hypothesis is accepted.

HYPOTHESIS 2:

Articulation, as operationally defined, is being segmentally implemented within some counties of New Jersey:

As was the case in the first hypothesis, evaluation of this hypothesis is dependent on projecting reality from the opinion statements in the questionnaire. If a given activity is actually taking place and performing its manifest function within a county, all respondents should acknowledge its existence. This is not positive proof that the activity (with all of its ramifications) is taking place. It simply establishes that the population believes it is taking place. The implications of this in terms of reference group theory is discussed in the next chapter. For the present, it will be assumed that concurrence of the population as to the existence of articulation constitutes empirical evidence of existence.

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(5)The rank order of prevelance of each activity is identical under both methods used to establish articulation level.

Individual reports of activity are rather insignificant in establishing the level of articulation. Individuals obviously cannot articulate in a vacuum, nor can effective articualtion exist intra-institutionally. Significance can only be established by showing concurrance between groupings of pupulation individuals within the same (articulating) county. Table 11 displays responses by such groupings, and gives appropriate weight to these combinations for each county. Positive intra-county responses to all activity are weighted as follows:

1. If both individuals at the same institutional level (President and Director or Superintendent and Coordinator) agree, the number of agreements are multiplied by one. This is the lowest level of significance.

2. If both individuals at the same administrative level (Presiden^s and Superintendents or Directors and Coordinators) agree, the number of agreements are multiplied by two. There is a shared belief that articulation is taking place across institutional lines.

3. If all four individuals within the county agree, the number of agreements are multiplied by five. This is the greatest possible evidence and implies that the activity is actually occurring.

Under this system, each county has a theoretical potential articulation score of 154. As can be seen on Table 11, the highest score for any county is 60. This is only 38.9% of the potential. From this point (as shown by illustration 2) articulation activity, as operationally defined, drops off very sharply. Six counties show absolutely no activity. Articulation as a complex totality is, indeed, very segmentally implemented within the state. Individual articulative activities are likewise highly segmentally implemented. Table 9 and illustration 1 show a 654% spread between individual and group reports of activities on a statewide basis.

HYPOTHESIS 3:

There is a general consensus within the experimental population that additional articulation is desirable:

Section "E" of the survey instrument solicits the respondents attitude toward 21 specific concepts concerning articulation. Tables 12, 13, 14, 15, and 15-A display responses grouped by professional group, Administrative level, Institutional level, and Intra-County response. Responses are numbered in the table to correspond with the numbering sequence in Section "E" of the Survey Instrument (Appendix A)

Eight of the questions in this section (No.'s 1, 3, 4, 5, 7, 10, 14, 20) ask the respondent's attitudes toward activities that, if implemented, would constitute a high level of articulation as operationally specified. Table 12-A displays the responses to these questions.

Of a total of 536 responses, 260 (49%) were in the "strongly agree" category and 152 (28%) were "somewhat agree." Only 12% of the responses were in the disagree categories. This data strongly supports the hypothesis, but Tables 12-A and 15-A show that there are complications. There is considerable discrepancy of opinion as to the most favorable methods of achieving increased articulation. This problem is discussed under hypothesis #6 and in the next chapter.

HYPOTHESIS 4:

There is a difference of opinion between chief administrators and Cooperative Education administrators as to the desired amount and direction of articulation:

Section "E" of the survey instrument contains twenty-one statements regarding the respondent's attitude toward selected factors of articulation. The statements, as listed below, are numbered to correspond with the relevant tables:

1. The community college should award advanced credit for high school vocational education courses based on demonstrated competencies and

skills.

2. The vocational education student should go immediately into the world of work rather than attend college.

3. Community college counselors and high school vocational education counselors should visit with each other at least once a year.

4. High school vocational education graduates should be encouraged to enroll in two year college career programs as a means of continuing their education.

5. The high school and the community college should share their vocational education faculty and special laboratories.

6. The vocational education programs in both the high school and the community college must be developed separately.

7. The community college and the high school should strive for continuity between their vocational education programs.

8. The high school vocational education graduate is not prepared to attend college.

9. Most students who attend community colleges do

so because they are not prepared to attend four-year colleges.

10. The high school vocational education instructor should teach one or two community college courses in his field.

11. The community college has more in common with four-year colleges than with high schools.

12. The high school vocational education graduate is competing for the same job as the two-year college vocational education graduate most of the time.

13. It is unrealistic to design high school vocational programs to prepare students to continue in their specialty a the community college as well as to immediately enter the labor force.

14. High school counselors should plan for their vocational education students to visit the two-year college programs at least once a year.

15. High school College Nights and Career Days are not very successful.

16. The community college is responsible for initiating all communications with the high

school.

17. The trend in our society is toward longer formal education, therefore, all vocational education should be concentrated at the post-secondary level.

18. Vocational education is for students who demonstrate an inability to do academic work.

19. Smooth working relationships are discouraged when two different state agencies are in charge of high school and college vocational education.

20. Community colleges and high schools have some unnecessary duplication which could be avoided through closer cooperation and program planning.

21. The community college is merely an extension--the 13th and 14th years of high school.

Respondents were asked to give their attitude toward each statement on a five point scale:

1. I strongly agree
2. I agree somewhat
3. Neutral

4. I disagree somewhat
5. I strongly disagree

In reading the tables the lower numerals show highest agreement. A mean score on the relevant tables of 1.000 indicates strong agreement among the particular respondent category. A score of 5.000 is, correspondingly, strong disagreement.

Table 13 displays the mean scores and standard deviations for all responses to these statements controlled by administrative level. A one way analysis of variance for two samples was applied to each statement. In no case was the variance between the two administrative levels significant at the 0.05 level. Since not even one item was significant, the null hypothesis of no difference can not be rejected. This hypothesis is therefore rejected.

HYPOTHESIS 5:

There is greater correlation between the responses of Cooperative Education administrators than between chief administrators:

Testing this hypothesis involves comparing the response variance between operating administrators (Directors and Coordinators) and chief administrators (Presidents and Superintendents) in all major areas of the survey. These areas are:

1. General Attitudes
2. Articulation Activity Reported
3. Attitudes Toward Articulation

4. Opinions Concerning Impediments to Articulation.

Applicable data for each of these areas is displayed, respectively, in Tables 2, 5, 12, and 16. The mean variation within each paired grouping was established for each of the above tables, and subjected to a one way analysis of variance for two samples (T-test).

For the first two variables, General Attitudes and Reported Articulation Activity, no significant difference was found (at the.05 level). It was not possible to reject the null hypothesis (no difference). For the second two variables, Attitudes Toward Articulation and Opinions Concerning Impediments, there was a significant difference established at the .05 level. In both cases, however, this difference showed greater agreement between chief administrators than between operating administrators. This is evidence antithetical to the hypothesis. The hypothesis is, accordingly, rejected.

Data compiled from tables used to test this hypothesis have been combined and displayed as Table 21.

HYPOTHESIS 6:

There is general consensus as to a body of articulation activity that could be immediately adopted within each county and within the State:

Hypothesis #3 established that additional articulation was desired by the project population. The data supporting this also demonstrated that there was divergence of opinion as to the ways such additional articulation should be implemented.

Support for Hypothesis #6 consists of identifying articulation activities that have broad support throughout the population. It is also necessary to show that these activities are supported on an intra-county basis. For internal consistency, the same questions used in Hypothesis #3 are used in this hypothesis.

Table 22 displays the rank order of the highest rated attitudes in six control categories. It should be noted that, except for the transposition of the rank order of statements 10 and 11, strongest support was given for those items previously listed as most conducive to increased articulation.

Statement Number 10, "The High School Vocational Education instructor should teach one or two community college courses in his field" was not ranked in the top eight by any category of respondent. Even though this would be very beneficial to articulation, there seems little chance of it being implemented.

It is interesting that statement number 11, "The community college has more in common with four-year colleges than with high schools" was an attitude held very highly among the population. This point will be addressed in the next chapter.

Seven activities were selected by al categories of respondents as having their greatest support:

1. The community college should award advanced credit for high

school vocational education courses based on demonstrated competencies and skills.

3. Community college counselors and high school vocational education counselors should visit with each other at least once a year.

4. High school vocational education graduates should be encouraged to enroll in two year college career programs as a means of continuing their education.

5. The high school and the community college should share their vocational education faculty and special laboratories.

7. The community college and the high school should strive for continuity between their vocational education programs.

14. High school counselors should plan for their vocational education students to visit the two-year college programs at least once a year.

20. Community colleges and high schools have some unnecessary duplication which could be avoided through closer cooperation and program planning.

Collectively, these activities constitute a body of articulation activity that could be immediately adopted within each county in the State.

Conclusions

The data verify that a working State plan for vocational education articulation between secondary and post-secondary institutions does not exist. More importantly, the tables derived from the data provide information in several categories:

1. Articulation activities most commonly observed.

2. Articulation activities readily accepted by the respondents.

3. Impediments, real or imagined, to the implementation of additional articulation activity.

4. The above information provided is controlled by a nine-fold matrix of categories.

Specific recommendations for the use of this data would be subjective. During the data collection phase of the project, much concern was expressed by the respondents as to potential interpretations. Accordingly, it will be left to the reader to decide what should be done from this point. All information gathered has been presented with the exception of details that would possibly identify individual respondents.

TABLE 1

RESPONSE TO QUESTIONNAIRE BY PROFESSIONAL GROUP CATEGORY

ADMINISTRATOR CATEGORY	POPULATION TOTAL	RESPONSES RECEIVED	PERCENT RESPONDING	PERCENT OF TOTAL RESPONSE
President	17	16	94.12	23.9
Co-Op Director	14	13	92.86	19.4
Superintendent	21	18	85.71	26.9
Coordinator	21	20	95.23	29.9
All Categories	73	67	91.78	100

TABLE 2

RESPONSE TO GENERAL ATTITUDE QUESTIONS BY PROFESSIONAL GROUP CATEGORY

	President	Director	Superintendent	Coordinator
Statement #1				
Mean	1.750	1.769	1.556	1.550
Standard Deviation	0.856	0.725	0.511	0.510
Mode	1	2	2	2
Statement #2				
Mean	2.750	2.846	2.444	2.650
Standard Deviation	1.065	1.281	1.338	1.424
Mode	2	2	2	2
Statement #3				
Mean	2.375	2.846	3.278	2.950
Standard Deviation	1.147	1.345	1.526	1.356
Mode	2	2	2	2
Statement #4				
Mean	1.813	2.000	2.118	2.000
Standard Deviation	0.750	1.000	0.928	0.795
Mode	2	1	2	2

TABLE 3

RESPONSE TO GENERAL ATTITUDE QUESTIONS GROUPED BY ADMINISTRATIVE LEVEL

	Chief Administrator: Presidents and Superintendents	Operating Administrator: Directors and Coordinators
Statement "1		
Mean	1.647	1.552
Standard Deviation	0.691	0.506
Mode	2	2
Statement #2		
Mean	2.588	2.727
Standard Deviation	1.209	1.353
Mode	2	2
Statement #3		
Mean	2.853	2.909
Standard Deviation	1.417	1.331
Mode	2	2
Statement #4		
Mean	1.970	2.000
Standard Deviation	0.847	0.866
Mode	2	2

TABLE 4

RESPONSE TO GENERAL ATTITUDE QUESTIONS GROUPED BY INSTITUTIONAL CATEGORY

	Post Secondary: Presidents and Directors	Secondary: Superintendents and Coordinators	All Respondents
Statement "1			
Mean	1.759	1.553	1.642
Standard Deviation	0.786	0.504	0.644
Mode	2	2	2
Statement #2			
Mean	2.793	2.553	2.657
Standard Deviation	1.146	1.370	1.274
Mode	2	2	2
Statement #3			
Mean	2.586	3.105	2.881
Standard Deviation	1.240	1.429	1.365
Mode	2	2	2
Statement #4			
Mean	1.897	2.054	1.985
Standard Deviation	0.860	0.848	0.850
Mode	1	2	2

TABLE 5
RESPONSE TO ARTICULATION ACTIVITY QUESTIONS
BY
PROFESSIONAL GROUP

Question Number	President			Director			Superintendent			Coordinator		
	Yes	No	N.R.	Yes	No	N.R.	Yes	No	N.R.	Yes	No	N.R.
1	8	7	1	6	6	1	9	8	1	9	6	5
2	8	7	1	10	3	0	8	6	4	9	2	9
3	3	12	1	7	4	2	7	10	1	9	8	3
4	16	0	0	12	1	0	17	0	1	16	0	4
5	10	6	0	8	5	0	12	5	1	12	5	3
6	3	13	0	6	7	0	5	12	1	5	10	5
7	4	11	1	5	8	0	6	11	1	10	5	5
8	12	3	1	10	3	0	13	4	1	14	2	4
9	10	5	1	9	4	0	10	7	1	13	3	4
10	9	7	0	7	4	2	4	13	1	10	6	4
11	1	15	0	2	9	2	3	14	1	4	13	3
12	10	6	0	8	5	0	10	6	2	13	4	3
13	2	14	0	2	11	0	10	7	1	8	6	6
14	2	14	0	5	8	0	4	13	1	7	10	3
TOTALS	98	120	6	97	78	7	118	116	18	139	80	61

TABLE 6
RESPONSE TO ARTICULATION ACTIVITY QUESTIONS BY ADMINISTRATIVE LEVEL

Question Number	Chief Administrator: Presidents and Superintendents			Operating Administrator: Directors and Coordinators		
	Yes	No	N.R.	Yes	No	N.R.
1	17	15	2	15	12	6
2	16	13	5	19	5	9
3	10	22	2	16	12	5
4	33	0	1	28	1	4
5	22	11	1	20	10	3
6	8	25	1	11	17	5
7	10	22	2	15	13	5
8	25	7	2	24	5	4
9	20	12	2	22	7	4
10	13	20	1	17	10	6
11	4	29	1	6	22	5
12	20	12	2	21	9	3
13	12	21	1	10	17	6
14	6	27	1	12	18	3
TOTALS	216	236	24	236	158	68

TABLE 7
RESPONSE TO ARTICULATION ACTIVITY QUESTIONS
BY
INSTITUTIONAL CATEGORY

Question Number	Post Secondary: Presidents and Directors			Secondary: Superintendents and Coordinators			All Respondents:		
	Yes	No	N.R.	Yes	No	N.R.	Yes	No	N.R.
1	14	13	2	18	14	6	32	27	8
2	18	10	1	17	8	13	35	18	14
3	10	16	3	16	18	4	26	34	7
4	28	1	0	33	0	5	61	1	5
5	18	11	0	24	10	4	42	21	4
6	9	20	0	10	22	6	19	42	6
7	9	19	1	16	16	6	25	35	7
8	22	6	1	27	6	5	49	12	6
9	19	9	1	23	10	5	42	19	6
10	16	11	2	14	19	5	30	30	7
11	3	24	2	7	27	4	10	51	6
12	18	11	0	23	10	5	41	21	5
13	4	25	0	18	13	7	22	38	7
14	7	22	0	11	23	4	18	45	4
TOTALS	195	198	13	257	196	79	452	394	92

TABLE 8

POSITIVE RESPONSE TO ARTICULATION ACTIVITY QUESTIONS BY INTRA-COUNTY RESPONSE

Articulation Activity Question Number	RESPONDENT CATEGORY* 1	2	3	4	5	6	7	8	9
1	8	6	9	9	2	3	1	3	1
2	8	10	8	9	5	1	3	1	1
3	3	7	7	9	2	3	1	2	1
4	16	12	17	16	5	5	3	2	6
5	10	8	12	12	2	3	2	1	4
6	3	6	5	5	0	2	1	0	1
7	4	5	6	10	2	0	1	2	1
8	12	10	13	14	3	2	3	2	5
9	10	9	10	13	4	4	2	3	2
10	9	7	4	10	2	0	1	1	2
11	1	2	3	4	0	2	1	1	0
12	10	8	10	13	4	5	3	2	0
13	2	2	10	8	0	4	1	1	1
14	2	5	4	7	0	1	0	0	1
TOTAL	98	97	118	139	31	35	23	21	26

*RESPONDENT CATEGORY
1=President
2=Director
3=Superintendent
4=Coordinator
5=1 and 2 Above in Same County
6=3 and 4 Above in Same County
7=1 and 3 Above in Same County
8=1 and 4 Above in Same County
9=All Respondents in Same County

TABLE 9

MOST SIGNIFICANT ARTICULATION ACTIVITY
REPORTED BY QUESTION NUMBER - WEIGHTED

RELATIVE SIGNIFICANCE OF ARTICULATION ACTIVITY

Question Number	A	B	C	D	E	F	Weighted Score
1	32	4	6	4	12	8	66
2	35	10	2	12	4	8	71
3	26	4	6	4	8	8	56
4	61	10	5	12	8	48	144
5	42	4	6	8	4	32	96
6	19	0	4	4	0	8	35
7	25	4	0	4	8	8	49
8	49	6	4	12	8	40	119
9	42	8	8	8	12	16	94
10	30	4	0	4	4	16	58
11	10	0	4	4	4	0	22
12	41	8	10	12	8	0	79
13	22	0	8	4	4	8	46
14	18	0	2	0	0	8	28
TOTAL	452	62	65	92	84	208	963

*Weight Key
A. Activity Reported by Individual - NX1
B. Activity Reported by Both President and Director in Same County - NX2
C. Activity Reported by Both Superintendent and Coordinator in Same County - NX2
D. Activity Reported by Both President and Superintendent in Same County - NX4
E. Activity Reported by Both Director and Coordinator in Same County - NX4
F. Activity Reported by All Respondents in Same County - NX8
See Table 8 for unweighted "N" Scores

Total Potential Weighted Score = 14,070

TABLE 10

COMPOSITE RESPONSE TO ALL ARTICULATION ACTIVITY QUESTIONS BY PROFESSIONAL GROUP, ADMINISTRATIVE LEVEL, AND INSTITUTIONAL CATEGORY

	Total Responses	YES Absolute Frequency	Percentage	NO Absolute Frequency	Percentage	N.R. Absolute Frequency	Percentage
Presidents	224	98	43.7	120	53.6	6	2.7
Directors	182	97	53.3	78	42.9	7	3.8
Superintendents	252	118	46.8	116	46.0	18	7.2
Coordinators	280	139	49.6	80	28.6	61	21.8
Chief Administrators Presidents and Superintendents	476	216	45.4	236	49.6	24	5.0
Operating Administrators Directors and Coordinators	462	236	51.1	158	34.2	68	14.7
Post Secondary Presidents and Directors	406	195	48.0	198	48.8	13	3.2
Secondary Superintendents and Coordinators	532	257	48.3	201	37.8	74	13.9
All REsponses	938	452	48.2	394	42	92	9.8

TABLE 11
TOTAL ARTICULATION ACTIVITY WITHIN EACH COUNTY WEIGHTED*

COUNTY	A	B	C	D	E	WEIGHTED SCORE
1	55	2		1	2	60
2				3		3
3						0
4					1	1
5					2	2
6	15	4	2	3	3	27
7	5	6		3		14
8	15		4		2	21
9						0
10					6	6
11						0
12	10	6	10	5	3	34
13		4		7		21
14	5	2	6	1	2	16
15	20	2	2		2	26
16						0
17			12	7		19
18		10			8	18
19						0
20	5		10	4	4	23
21						0

*WEIGHT KEY

A. Number Of Activities Reported As Existing By All Four Respondents Within County - N x 5

B. Number Of Activities Reported As Existing By Both The President And Superintendent Within County - N x 2

C. Number Of Activities Reported As Existing By Both The Director and Coordinator Within County - N x 2

D. Number Of Activities Reported By Both The President And Director within County - N x 1

E. Number Of Activities Reported By Both The Superintendent And Coordinator Within County - N x 1

Potential weighted score for each county = 154

TABLE 12

ATTITUDES CONCERNING ARTICULATION BY PROFESSIONAL GROUP

QUESTION	PRESIDENT		DIRECTOR		SUPERINTENDENT		COORDINATOR	
NUMBER	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
1	1.938	1.340	1.923	1.115	1.667	1.188	2.150	1.531
2	3.933	1.100	3.462	0.967	3.611	1.037	3.300	1.031
3	1.125	0.342	1.385	0.650	1.278	0.575	1.100	0.308
4	1.938	1.340	1.231	0.439	1.722	0.669	2.250	0.716
5	1.750	0.931	2.000	1.000	1.778	1.003	2.000	1.170
6	3.563	1.413	3.231	1.235	3.889	1.183	4.300	1.081
7	1.625	1.204	1.462	0.877	1.444	0.856	1.250	0.444
8	4.063	1.237	4.077	1.115	4.222	1.263	4.000	1.257
9	4.000	1.414	4.308	0.947	3.778	1.592	3.421	1.387
10	2.938	1.063	2.846	0.987	3.389	0.778	2.700	1.129
11	2.125	1.147	2.462	1.561	2.722	1.274	2.550	1.050
12	4.125	0.957	4.000	0.707	3.500	1.150	3.550	1.050
13	3.875	1.204	4.000	1.291	4.333	1.029	4.250	0.910
14	1.250	0.447	1.077	0.277	1.833	1.098	1.550	0.759
15	3.250	1.183	3.385	1.446	3.500	1.465	4.000	1.170
16	4.250	1.065	3.923	1.320	4.389	0.916	4.250	1.118
17	4.188	1.109	4.308	0.855	5.000	0.000	4.900	0.308
18	4.688	0.793	4.692	0.480	5.000	0.000	4.450	1.099
19	2.625	1.258	3.231	1.092	2.722	1.526	3.100	1.744
20	2.813	1.328	2.385	1.044	2.500	1.581	2.700	1.302
21	4.375	1.204	4.308	1.109	3.444	1.338	3.650	1.089

TABLE 13

ATTITUDES CONCERNING ARTICULATION BY ADMINISTRATIVE LEVEL

QUESTION NUMBER	CHIEF ADMINISTRATORS PRESIDENTS AND SUPERERINTENDENTS MEAN	STANDARD DEVIATION	OPERATING ADMINISTRATORS DIRECTORS AND COORDINATORS MEAN	STANDARD DEVIATION
1	1.794	1.250	2.061	1.368
2	3.758	1.062	3.364	0.994
3	1.206	0.479	1.212	0.485
4	1.824	1.029	1.848	0.795
5	1.765	0.955	2.000	1.090
6	3.735	1.286	3.879	1.244
7	1.529	1.022	1.333	0.645
8	4.147	1.234	4.030	1.185
9	3.882	1.493	3.781	1.289
10	3.176	0.936	2.758	1.062
11	2.441	1.236	2.515	1.253
12	3.794	1.095	3.727	0.944
13	4.118	1.122	4.152	1.064
14	1.559	0.894	1.364	0.653
15	3.382	1.326	3.758	1.300
16	4.324	0.976	4.121	1.193
17	4.618	0.853	4.667	0.645
18	4.853	0.558	4.545	0.905
19	2.676	1.387	3.152	1.503
20	2.647	1.454	2.576	1.200
21	3.882	1.343	3.909	1.128

TABLE 14

ATTITUDES CONCERNING ARTICULATION BY INSTITUTIONAL CATEGORY

	POST SECONDARY PRESIDENTS AND DIRECTORS		SECONDARY SUPERINTENDENTS AND COORDINATORS		ALL RESPONDENTS	
QUESTION NUMBER	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
1	1.931	1.223	1.921	1.383	1.925	1.306
2	3.714	1.049	3.447	1.032	3.561	1.040
3	1.241	0.511	1.184	0.457	1.209	0.478
4	1.621	1.083	2.000	0.735	1.836	0.914
5	1.862	0.953	1.895	1.085	1.881	1.023
6	3.414	1.323	4.105	1.134	3.806	1.258
7	1.552	1.055	1.342	0.669	1.433	0.857
8	4.069	1.163	4.105	1.247	4.090	1.203
9	4.138	1.217	3.595	1.481	3.833	1.388
10	2.897	1.012	3.026	1.026	2.970	1.015
11	2.276	1.334	2.632	1.149	2.478	1.235
12	4.069	0.842	3.526	1.084	3.761	1.016
13	3.931	1.223	4.289	0.956	4.135	1.086
14	1.172	0.384	1.684	0.933	1.463	0.785
15	3.310	1.285	3.763	1.324	3.565	1.317
16	4.103	1.175	4.316	1.016	4.224	1.085
17	4.241	0.988	4.947	0.226	4.642	0.753
18	4.690	0.660	4.711	0.835	4.701	0.759
19	2.897	1.205	2.921	1.634	2.910	1.454
20	2.621	1.208	2.605	1.424	2.612	1.325
21	4.345	1.143	3.553	1.201	3.896	1.233

TABLE 15

ATTITUDES CONCERNING ARTICULATION GROUPED BY INTRA-COUNTY RESPONSE*

QUESTION	A	B	C	D	E	F	G	H	I
NUMBER	1234	1234	1234	1234	1234	1234	1234	1234	1234
1	1111	2121	1414	2111	3111	1212	5111	1311	1214
2	1244	4534	5443	4333	4455	3323	5332	3453	3442
3	1211	1121	1311	1111	2111	1111	1111	1211	1111
4	4122	3122	1111	2123	2213	2223	2111	1112	1122
5	1111	2322	1221	1142	2211	2312	4421	2214	1115
6	1455	4325	4344	4424	3455	5155	2225	1455	2345
7	5111	1121	1211	2111	4111	1111	2111	1112	1211
8	5555	2542	5425	3255	4545	5452	4554	3455	2544
9	5555	4525	5424	5350	4552	5224	5521	1455	4555
10	5322	2433	3232	3253	3354	3333	3441	1232	3235
11	3233	1241	2153	1432	2324	1212	1123	1144	5112
12	5423	4522	4344	4324	5453	4442	5424	2444	2344
13	2544	4542	5425	4554	2455	2254	2554	5454	4325
14	1111	1121	1221	2111	2112	1112	1142	1111	2112
15	2444	4422	5315	5445	3455	4125	2451	4225	4523
16	3555	5535	4442	5354	4455	5355	5525	1552	5532
17	5555	5455	4454	5455	3255	4555	3555	2454	5555
18	5555	2555	5455	5455	4555	5554	4555	5452	5555
19	2322	1421	2444	1312	4545	4224	4351	1211	4333
20	1233	2521	2114	3254	4252	4211	4421	5212	2212
21	2555	4532	5444	5444	5454	5223	5525	5524	2542

* Nine counties in which all four professional group incumbents exist and all four respondend to questions to section "E" of the questionnaire.

TABLE 16

IMPEDIMENTS TO ARTICULATION AS RATED BY PROFESSIONAL GROUP- MEAN SCORES

QUESTION NUMBER	PRESIDENT MEAN	PRESIDENT STANDARD DEVIATION	DIRECTOR MEAN	DIRECTOR STANDARD DEVIATION	SUPERINTENDENT MEAN	SUPERINTENDENT STANDARD DEVIATION	COORDINATOR MEAN	COORDINATOR STANDARD DEVIATION
1	2.688	1.352	2.538	1.050	2.824	1.286	3.294	1.213
2	2.750	1.342	2.231	1.235	2.118	1.219	2.353	1.455
3	3.400	1.183	3.154	1.144	3.471	1.505	3.882	1.453
4	3.429	1.505	3.333	1.614	3.625	0.885	3.714	1.204
5	3.125	1.500	3.167	1.337	3.353	1.272	3.059	0.966
6	3.533	1.407	2.923	1.706	2.765	1.393	2.857	1.099
7	1.750	0.447	2.000	0.447	1.667	0.492	1.643	1.497
8	2.133	1.246	1.847	0.987	2.235	1.091	2.625	1.310
9	2.200	1.207	2.385	0.961	2.294	0.849	2.188	0.911
10	2.600	1.549	3.000	1.291	2.412	1.064	2.375	1.310
11	2.800	1.568	3.077	1.256	2.588	1.502	2.667	1.534
12	2.933	1.534	2.769	1.235	2.647	1.272	3.278	1.364
13	2.933	1.387	3.000	1.291	3.294	1.532	3.438	1.315
14	2.467	1.506	2.538	1.561	3.176	1.510	2.944	1.474
15	2.800	1.474	2.769	1.363	3.176	1.468	2.833	1.043
16	2.933	1.280	3.000	1.225	3.235	1.437	3.111	1.023
17	2.533	1.506	2.846	1.573	3.000	1.458	2.556	1.580
18	2.800	1.320	2.833	1.403	2.941	1.249	2.778	1.437
19	3.133	1.506	3.000	1.291	3.235	1.348	2.722	1.406

TABLE 17

IMPEDIMENTS TO ARTICULATION AS RATED BY ADMINISTRATIVE LEVEL

	CHIEF ADMINISTRATORS PRESIDENTS AND SUPERERINTENDENTS		OPERATING ADMINISTRATORS DIRECTORS AND COORDINATORS	
QUESTION NUMBER	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
1	2.758	1.300	2.967	1.189
2	2.424	1.300	2.300	1.343
3	3.438	1.343	3.567	1.357
4	3.533	1.196	3.538	1.392
5	3.242	1.370	3.103	1.113
6	3.125	1.431	2.889	1.396
7	1.714	0.460	1.800	0.500
8	2.188	1.148	2.276	1.222
9	2.250	1.016	2.276	0.922
10	2.500	1.295	2.655	1.317
11	2.688	1.512	2.839	1.416
12	2.781	1.385	3.065	1.315
13	3.125	1.454	3.241	1.300
14	2.844	1.526	2.774	1.499
15	3.000	1.459	2.806	1.167
16	3.094	1.353	3.[illegible]55	1.093
17	2.781	1.475	2.677	1.557
18	2.875	1.264	2.800	1.400
19	3.188	1.401	2.839	1.344

TABLE 18

IMPEDIMENTS TO ARTICULATION AS RATED BY INSTITUTIONAL CATEGORY MEAN SCORES

	POST SECONDARY PRESIDENTS AND DIRECTORS		SECONDARY SUPERINTENDENTS AND COORDINATORS		ALL RESPONDENTS	
QUESTION NUMBER	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
1	2.621	1.208	3.059	1.254	2.857	1.242
2	2.517	1.299	2.235	1.327	2.365	1.311
3	3.286	1.150	3.676	1.471	3.500	1.340
4	3.385	1.525	3.667	1.028	3.536	1.279
5	3.143	1.407	3.206	1.122	3.177	1.248
6	3.250	1.555	2.806	1.250	3.017	1.408
7	1.852	0.456	1.645	0.485	1.755	0.477
8	2.000	1.122	2.424	1.200	2.230	1.175
9	2.286	1.084	2.242	0.867	2.262	0.964
10	2.786	1.424	2.394	1.171	2.574	1.297
11	2.929	1.412	2.629	1.497	2.762	1.456
12	2.857	1.380	2.971	1.339	2.921	1.348
13	2.964	1.319	3.364	1.410	3.180	1.372
14	2.500	1.503	3.057	1.474	2.810	1.501
15	2.786	1.397	3.000	1.260	2.905	1.316
16	2.964	1.232	3.171	1.224	3.079	1.222
17	2.679	1.517	2.771	1.516	2.730	1.505
18	2.815	1.331	2.857	1.332	2.839	1.321
19	3.071	1,386	2.971	1.382	3.016	1.374

TABLE 19

IMPEDIMENTS TO ARTICULATION GROUPED BY INTRA-COUNTY RESPONSE*

QUESTION	A	B	C	D	E	F	G
NUMBER	1234	1234	1234	1234	1234	1234	1234
1	5255	4231	2330	1243	3544	3334	1314
2	5211	2125	3230	2221	2513	1324	4114
3	3355	2225	4530	3355	4415	5344	5224
4	1355	0543	5120	4534	5230	3544	0545
5	1433	3042	5230	4513	5341	3544	2353
6	2433	0534	3120	5211	5112	3334	3512
7	1222	1120	1201	1222	2202	2200	2222
8	1333	1234	1111	4223	1143	5225	3422
9	3322	3133	1113	4221	1241	4222	1431
10	1422	5342	3532	5311	3432	4224	2551
11	3355	1511	4515	1412	5324	5332	1313
12	1322	5441	4314	1412	4225	5332	3314
13	2455	3555	1110	2442	4440	5411	3314
14	1355	5451	1121	2434	4233	5113	2511
15	5455	3453	1223	5343	4322	5224	3512
16	3455	3453	1224	3243	4332	5224	3512
17	1255	1552	3432	2225	4121	5211	1511
18	1455	5541	1131	2334	2431	5333	2112
19	1255	5431	3242	2334	5341	5333	1512

*Seven counties in which all four professional group incumbents exist and all four responded to questions to Section "F" of the questionnaire.

TABLE 12-A
TOTAL RESPONSE TO HIGH ARTICULATION ACTIVITY ATTITUDE QUESTIONS

RESPONSE CODE		QUESTION NUMBER E-1	E-3	E-4	E-5	E-7	E-10	E-14	E-20	TOTAL	RELATIVE FREQUENCY (PERCENT)
Strongly Agree	1	36	55	28	30	49	4	45	13	260	48.5
Agree Somewhat	2	17	10	26	23	14	17	16	29	152	28.3
Neutral	3	3	2	11	7	1	29	3	4	60	11.2
Disagree Somewhat	4	5	0	0	6	2	11	3	13	40	7.5
Strongly Disagree	5	6	0	2	1	1	6		8	24	4.5
No Response	0										
Total		67	67	67	67	67	67	67	67	536	

RESPONSE BY PROFESSIONAL GROUP	E-1	E-3	E-4	E-5	E-7	E-10	E-14	E-20
President								
Mean	1.938	1.125	1.938	1.750	1.625	2.938	1.250	2.813
Standard Deviation	1.340	0.342	1.340	0.931	1.204	1.063	0.447	1.328
Director								
Mean	1.923	1.385	1.231	2.000	1.462	2.846	1.077	2.385
Standard Deviation	1.115	0.650	0.439	1.000	0.877	0.987	0.277	1.044
Superintendent								
Mean	1.667	1.278	1.722	1.778	1.444	3.389	1.833	2.500
Standard Deviation	1.188	0.575	0.669	1.003	0.856	0.778	1.098	1.581
Coordinator								
Mean	2.150	1.100	2.250	2.000	1.250	2.700	1.550	2.700
Standard Deviation	1.531	0.308	0.716	1.170	0.444	1.129	0.759	1.302

TABLE 15 - A

ATTITUDES CONCERNING ARTICULATION GROUPED BY INTRA-COUNTY RESPONSE
MEAN RESPONSE OF ALL RESPONDENTS IN COUNTY

QUESTION NUMBER	A	B	C	D	E	F	G	H	I	MEAN
1	1.00	1.50	2.50	1.25	1.50	1.50	2.00	1.50	2.00	1.638
2	2.75	4.00	4.00	3.25	4.50	2.75	3.25	3.75	3.25	3.500
3	1.25	1.25	1.50	1.00	1.25	1.00	1.00	1.25	1.00	1.166
4	2.25	2.00	1.00	2.00	2.00	2.25	1.25	1.25	1.50	1.722
5	1.00	2.25	1.50	2.00	1.50	2.00	1.75	2.25	2.00	1.805
6	3.75	3.50	3.75	3.50	4.25	4.00	2.75	3.75	3.50	3.636
7	2.00	1.25	1.25	1.25	1.75	1.00	1.25	1.25	1.25	1.361
8	5.00	3.25	4.00	3.75	4.50	4.00	4.50	4.25	3.75	4.111
9	5.00	4.00	3.75	3.25	4.00	3.25	3.25	3.75	4.75	3.888
10	3.00	3.00	2.50	3.75	3.75	3.00	3.00	2.00	3.25	3.027
11	2.75	2.00	2.75	2.50	2.75	1.50	1.75	1.50	2.00	2.166
12	3.50	3.25	3.75	3.50	4.25	3.50	3.75	3.50	3.25	3.583
13	3.75	3.75	4.00	4.50	4.00	3.25	4.00	4.50	3.50	3.916
14	1.00	1.25	1.50	1.25	1.50	1.25	2.00	1.00	1.50	1.361
15	3.50	3.00	3.50	4.50	4.25	3.00	3.00	3.25	3.50	3.500
16	4.50	4.50	3.50	4.25	4.50	4.50	4.25	3.25	3.75	4.111
17	5.00	4.75	4.25	4.75	3.75	4.75	4.50	3.75	5.00	4.500
18	5.00	4.25	4.75	4.75	4.75	4.75	4.75	4.00	5.00	4.666
19	2.25	2.00	3.50	1.75	4.50	3.00	3.25	1.25	3.25	2.750
20	2.25	2.50	2.00	3.50	3.25	2.00	2.75	2.50	1.75	2.500
21	4.25	3.50	4.25	4.25	4.50	3.00	4.25	4.00	3.25	3.916
MEAN	3.083	2.892	3.023	3.071	3.380	2.821	2.964	2.738	2.952	2.991

TABLE 20

IMPEDIMENTS TO ARTICULATION GROUPED BY INTRA-COUNTY RESPONSE
INDIVIDUAL RESPONSES COLLAPSED BY QUESTION NUMBER
MEAN RESPONSE FOR EACH COUNTY

QUESTION NUMBER	A	B	C	D	E	F	G	MEAN
1	4.25	2.50	2.00	2.50	4.00	3.25	2.25	2.96
2	2.25	2.50	2.00	1.75	2.75	2.50	2.50	2.32
3	4.00	2.75	3.00	4.00	3.50	4.00	3.25	3.50
4	3.50	3.00	2.00	4.00	2.50	4.00	3.50	3.21
5	2.75	2.25	2.50	3.50	3.50	4.00	3.25	3.11
6	3.00	3.00	1.50	2.25	2.25	3.25	2.75	2.57
7	1.75	1.00	1.00	1.75	1.50	1.00	2.00	1.43
8	2.50	2.50	1.00	2.75	2.25	3.50	2.75	2.46
9	2.50	2.50	1.50	2.25	2.00	2.50	2.25	2.21
10	2.25	3.50	3.25	2.50	3.00	3.00	3.25	2.96
11	4.00	2.00	3.50	2.00	3.50	3.25	2.00	2.89
12	2.00	3.50	3.00	2.00	3.25	3.25	2.75	2.82
13	4.00	4.50	0.75	3.00	3.00	2.75	2.75	2.96
14	3.50	3.50	1.25	3.25	3.00	2.50	2.25	2.75
15	4.75	3.50	2.00	3.50	2.75	3.25	2.75	3.21
16	4.25	3.50	2.25	3.00	3.00	3.25	2.75	3.14
17	3.25	3.25	3.00	2.75	2.00	2.25	2.00	2.64
18	3.50	3.50	1.50	3.00	2.50	3.50	1.50	2.71
19	3.25	3.25	2.75	3.00	3.25	3.50	2.25	3.03
MEAN	3.22	2.95	2.09	2.72	2.82	3.08	2.57	2.78

TABLE 21

RESPONSE VARIANCE BETWEEN CHIEF ADMINISTRATORS AND OPERATING ADMINISTRATORS

	Chief Administrators: Presidents and Superintendents	Operating Administrators: Directors and Coordinators
TABLE 2		
Total Variation	1.708	.519
Mean Variation	.427	.130
Standard Deviation	.322	.100
TABLE 5		
Total Variation	30.000	46.000
Mean Variation	2.143	3.286
Standard Deviation	2.214	1.541
TABLE 12		
Total Variation	7.450	8.230
Mean Variation	.350	.390
Standard Deviation	.240	.310
TABLE 16		
Total Variation	4.918	6.679
Mean Variation	.259	.352
Standard Deviation	.182	.242

TABLE 22

RANK ORDER OF HIGH POSITIVE RESPONSES TO ARTICULATION ATTITUDE QUESTIONS

STATEMENT	GROUP			RANK ORDER			AGGREGATE
NUMBER	A	B	C	D	E	F	RANK ORDER
1	6	7	6	6	5	4	6
3	1	1	1	2	1	1	1
4	4	8	4	4	6	6	5
5	5	6	5	5	4	5	4
7	2	2	2	3	2	2	2
10							
14	3	3	3	1	3	3	3
20	8		8	8	7	8	7
(Other)							
11	7		7	7	8	7	
6		4					
2		5					

KEY:

A-All Respondents
B-Chief Administrators
C-Operating Administrators
D-Post Secondary Administrators
E-Secondary Administrators
F-Intra-County Response

APPENDIX A

SURVEY INSTRUMENT

CAREER EDUCATION
ARTICULATION SURVEY

SPONSORED BY:

THE NEW JERSEY DEPARTMENT OF EDUCATION
DIVISION OF VOCATIONAL EDUCATION

A. IDENTIFICATION (Please complete or correct if in error)

1. Local Education Agency ____________________________

2. Address ____________________________

3. Name of Respondent ____________________________

4. Title of Respondent ____________________________

5. Immediate Supervisor's Title ____________________________

B. DEMOGRAPHIC INFORMATION

1. The service area of this institution is primarily: ☐ URBAN ☐ SUBURBAN ☐ RURAI

2. The full time equivalent enrollment (or average daily attendance) of this institution is approximately ___

3. The approximate percentage of the above students that are enrolled in Vocational Programs is ___

4. The approximate percentage of the above students that, before completing their program, will be involved in a cooperative work experience field placement situation is ___

5. The approximate number of cooperative employers providing work stations for these students is ___

6. Total faculty and staff (excluding clerical) involved in Cooperative Work Experience Programs. Please express in terms of full-time equivalency. ___

C. **GENERAL AREAS OF CONCERN**

A recent national survey concluded that there were four general areas of concern facing Career/Vocational Educators today. Please give us your opinion on each statement and any additional comments you may have.

STATEMENT	YOUR OPINION
1. An increasing concern with the improvement of program quality. Earlier efforts directed toward simply responding to the demand for new programs are now being turned to exploring ways in which better program quality can be achieved.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewha ☐ I strongly disagre
2. Shrinking enrollments at the secondary school level. High schools (and their closely related adult schools) are aggressively marketing their programs to adults to replace lost revenues. Conversely, colleges are developing in areas formerly restricted to secondary schools.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewha ☐ I strongly disagre
3. Increasing costs. The current demand for accountability and improved efficiency reflects the public's (and their political representative's) concern that educators are feathering their own nests at the expense of the taxpayer.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewha ☐ I strongly disagre
4. Competency-based instruction. Paralleling the concern with rising cost is the growing recognition that there ought to be better ways of assessing a student's competency; thereby, shortening the time required to reach a prescribed level of performance.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewha ☐ I strongly disagre

ADDITIONAL COMMENTS CONCERNING ANY OF THE ABOVE:

____

____

____

D. **STATUS OF ARTICULATION**

The purpose of this set of questions is to assess the actual level of articulation activity in your service area. The term "counterpart" refers to the local vocation school or community college, as appropriate. The term "you" refers also to anyone representing you.

1. Do formal agreements exist between your institution and its counterpart stating how you should collaborate in your efforts to provide career education? ☐ YE ☐ NO

2. Are criterion referenced evaluation methods used to grade your students? ☐ YE ☐ NO

STATUS OF ARTICULATION (continued)

3. Does the community college grant appropriate advance credit and placement for vocational school courses?
   ☐ YES
   ☐ NO

4. Does your institution plan to increase its efforts to ascertain the career success of its graduates?
   ☐ YES
   ☐ NO

5. Are there any joint planning or advisory committees serving both you and your counterpart (other than the official county coordinating committee)?
   ☐ YES
   ☐ NO

6. Are there any shared job placement or counseling programs between your school and its counterpart?
   ☐ YES
   ☐ NO

7. Other than for the state vocational education budget, is there any shared input into budgets between you and your counterpart?
   ☐ YES
   ☐ NO

8. Do you meet at least once a year with counterpart administrators in your county to discuss cooperation in occupational subject areas?
   ☐ YES
   ☐ NO

9. Do you visit local counterpart occupational programs in operation to observe instruction and assess the implications of the instructional offering for programs at your institution?
   ☐ YES
   ☐ NO

10. Has the community college been involved in discussions with the local high schools regarding the development of four-year occupational programs which would include basic preparation in the last two years of high school and specialized work continued at the community college?
    ☐ YES
    ☐ NO

11. Is there, in your county, a set of guidelines or a policy statement which clearly indicates what subject areas are considered high school level and which are considered community college level?
    ☐ YES
    ☐ NO

12. Does your community college offer an occupational program which is designed to prepare graduates for employment, in some area, at a level similar to that prepared for by a program at a local high school or area vocational/technical school?
    ☐ YES
    ☐ NO

13. Do you have on your campus a specialized occupational facility which is used by high school vocational students as well as by community college occupational students?
    ☐ YES
    ☐ NO

14. Does your community college and the local school system jointly appoint faculty members in highly specialized occupational subject areas?
    ☐ YES
    ☐ NO

15. If your county (city) has a specialized occupational facility used jointly by high school and community college students, is the administrator of the facility jointly appointed and jointly responsible? If NO, to whom is he responsible? ______________________
    ______________________________.
    ☐ YES
    ☐ NO

E. ATTITUDES CONCERNING ARTICULATION

Please give us your personal, first impulse, reaction to the following statements, in terms of your immediate assessment in your particular service area. In this section we are trying to capture subjective rather than objective reactions.

STATEMENT	YOUR OPINION
1. The community college should award advanced credit for high school vocational education courses based on demonstrated competencies and skills.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
2. The vocational education student should go immediately into the world of work rather than attend college.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
3. Community college counselors and high school vocational education counselors should visit with each other at least once a year.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
4. High school vocational education graduates should be encouraged to enroll in two year college career programs as a means of continuing their education.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
5. The high school and the community college should share their vocational education faculty and special laboratories.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
6. The vocational education programs in both the high school and the community college must be developed separately.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
7. The community college and the high school should strive for continuity between their vocational education programs.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
8. The high school vocational education graduate is not prepared to attend college.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree

ATTITUDES CONCERNING ARTICULATION (continued)

STATEMENT	YOUR OPINION
9. Most students who attend community colleges do so because they are not prepared to attend four-year colleges.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
10. The high school vocational education instructor should teach one or two community college courses in his field.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
11. The community college has more in common with four-year colleges than with high schools.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
12. The high school vocational education graduate is competing for the same job as the two-year college vocational education graduate most of the time.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
13. It is unrealistic to design high school vocational programs to prepare students to continue in their specialty at the community college as well as to immediately enter the labor force.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
14. High school counselors should plan for their vocational education students to visit the two-year college programs at least once a year.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
15. High school College Nights and Career Days are not very successful.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
16. The community college is responsible for initiating all communications with the high school.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
17. The trend in our society is toward longer formal education, therefore, all vocational education should be concentrated at the post-secondary level.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree

ATTITUDES CONCERNING ARTICULATION (continued)

STATEMENT	YOUR OPINION
18. Vocational education is for students who demonstrate an inability to do academic work.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
19. Smooth working relationships are discouraged when two different state agencies are in charge of high school and college vocational education.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
20. Community colleges and high schools have some unnecessary duplication which could be avoided through closer cooperation and program planning.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree
21. The community college is merely an extension--the 13th and 14th years of high school.	☐ I strongly agree ☐ I agree somewhat ☐ Neutral ☐ I disagree somewhat ☐ I strongly disagree

IMPEDIMENTS TO ARTICULATION

National surveys have identified five categories of barriers to articulation. We would like to have your impressions as to the significance of these barriers within your particular service area. Please rank each item on a scale of 1 to 5 in a descending order of significance, i.e., one (1) being a very significant problem and five (5) being a problem of lowest significance.

	Your Significance Score - (1-5)
External Forces:	
1. Governmental Regulations in General........................	☐
2. Budget Caps..	☐
3. New Jersey Public Law 212 (T&E)............................	☐
4. Labor-Industry Conflicts....................................	☐
5. Professional Organizations..................................	☐
6. Accreditation Bodies..	☐
7. Other Special Interest Groups (please list).................	☐
________________________________.................	☐
________________________________.................	☐
Stereotyped Perceptions:	
8. Lack of Knowledge About Counterpart.........................	☐
9. Misinformation (erroneous knowledge)........................	☐
10. Professional Animosities...................................	☐

IMPEDIMENTS TO ARTICULATION (continued)

Your Significance Score - (1-5)

Competition:

11. Community Colleges Offering "Secondary" Programs.......... [ ]
12. Secondary Schools Offering "Post-Secondary" Programs...... [ ]
13. Actual Duplication of Programs............................ [ ]

Communication:

14. Counterparts Do Not Communicate at All.................... [ ]
15. Reticence of Secondary School to Communicate.............. [ ]
16. Reticence of College to Communicate....................... [ ]
17. Absence of An Adequate Forum for Communication............ [ ]

Certification Requirements:

18. Difference in Secondary-Post Secondary Teaching Credentials... [ ]
19. Trade and Professional Certification...................... [ ]

Other:

Are there other impediments to articulation between you and your counterpart institution? (please list)

20. ________________________________................ [ ]
21. ________________________________................ [ ]
22. ________________________________................ [ ]

G. GENERAL COMMENTS

THANK YOU FOR YOUR HELP. THE RESULTS OF THIS SURVEY WILL BE PROVIDED TO ALL RESPONDENTS AS SOON AS THEY ARE TABULATED.

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